

# COPA Flight

The Journal of the  
Canadian Owners and  
Pilots Association

NOVEMBER 2018

## COPA on ADS-B WHAT'S IN IT FOR US?



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**ON THE COVER:**

Brampton Flight Centre and the Great War Flying Museum teamed up for a great fly-in in early September and Gustavo Corujo had all the great vantage points covered.



**37**

## FEATURE

### **37** GA IN ICELAND

*A FUN PLACE TO FLY*

COPA Director David Black and his partner Janine Cross travel the world sampling GA where they go and they found Iceland to be a welcoming and sensible place to fly. Add to that spectacular landscapes and it made for a memorable adventure.



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## DUSTING OFF THE CARs

### UPDATING THE CANADIAN AERONAUTICS REGULATIONS

It's been discussed and it is finally taking form: a modernization exercise of the CARs. These regulations came into force in 1996 and have grown to be somewhat unmanageable and convoluted, with probably as many exemptions issued by TCCA as there are articles in the CARs. Spanning a five-year time frame, the review exercise team (a full-time group of 12) has already received, over the last few years, a collection of over 1000 irritants to start with.

As you would imagine, there are many goals associated with this. The ones that interest us most include maintaining or increasing safety while reducing the effort for our members to demonstrate and clearly understand compliance with existing regulations. This effort will be undertaken with the collaboration of many outside players, and we are pleased to be part of the industry group to be consulted.

Over the next few months, COPA will be reaching out to its members (through our COPA Flights) to identify issues, irritants or just plain opportunities where the CARs could be simplified, be less prescriptive and be modernized with more evidence and risk-based regulations. By getting feedback from as many members as possible, we will be able to identify themes that may occur in different parts of the CARs and that can be addressed holistically, not just in one or two parts of the regulations. It's not an easy task. However for us, the voice of GA in the country, it is a great opportunity to be heard and to shape the regulations that will oversee

our Canadian freedom to fly for many years to come. It is for you, our members, a great advantage to be heard with such a strong voice, as a group of 16,000 and not just an individual voice. More details on the program can be found on the website <https://letstalktransportation.ca/lets-talk-CARs>.

#### ADS-B

There has been a lot written and said around on ADS-B, confusing a lot of people and understandably so. For the GA world, there are different systems out there: one with airborne antennae (on your aircraft) aimed towards the ground, one with antennae aimed towards the sky, one with both. For now, those countries implementing ADS-B are using ground-based stations to receive and re-transmit information. Other countries which have not yet regulated ADS-B (including Canada) will probably use a mix of ground and satellites or satellites only. Only in the U.S. can two frequencies (978 MHz below FL180 or 1090 MHz anywhere) be used; the rest of the world uses only one (1090 MHz). Nav Canada, which is studying the potential use of ADS-B in Canada, is using the 1090 MHz model, pointing to satellites in the sky. I invite you to read COPA's position on the proposed ADS-B mandate in Canada, appearing later in this issue. It has been out in the public since March 6 of this year, but I felt it necessary to share it in our magazine for everyone to read. Please feel free to contact us to discuss and share your opinions: [bgervais@copanational.org](mailto:bgervais@copanational.org).

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# DÉPOUSSIÉRAGE DU RAC

## MISE À JOUR DU RÈGLEMENT DE L'AVIATION CANADIEN

L'exercice de modernisation du RAC prend enfin vie. Entré en vigueur en 1996, ce règlement est devenu parfois ingérable et compliqué, comportant probablement autant d'exemptions émises par l'Aviation civile de TC (ACTC) que le RAC contient d'articles. Le travail s'échelonnant sur une période de cinq ans, l'équipe dévouée à la révision (12 personnes à temps plein) a déjà reçu, au cours des dernières années, une liste de plus de 1 000 irritants pour commencer son travail. Comme vous vous en doutez, les objectifs de cet exercice sont nombreux. Ceux qui nous intéressent le plus incluent le maintien ou l'augmentation de la sécurité, tout en réduisant les efforts de nos membres pour démontrer et comprendre clairement le respect des réglementations existantes.

Cet effort sera entrepris avec la collaboration de nombreux intervenants externes et nous sommes heureux de faire partie du groupe qui sera consulté. Au cours des prochains mois, COPA contactera ses membres (par le biais de ses Clubs COPA) pour identifier les problèmes, les irritants ou tout simplement des pistes d'améliorations pour simplifier le RAC, le rendre moins prescriptif et le moderniser avec davantage de réglementations fondées sur des données et des analyses de risques. En obtenant les commentaires du plus grand nombre de membres possible, nous pourrions identifier les thèmes susceptibles de se retrouver dans différentes parties du RAC et les traiter de manière globale, pas seulement dans une ou deux parties du règlement. Ce n'est pas une tâche facile mais c'est pour nous la référence et la voix de l'aviation générale (AG) au pays, une excellente occasion de nous faire entendre et de définir la réglementation qui régira notre liberté

canadienne de voler pendant de nombreuses années. C'est pour vous, nos membres, un grand avantage d'être entendus avec une voix aussi forte, en tant que groupe de 16 000 personnes et pas seulement une voix individuelle. Plus de détails sur le programme sont disponibles sur le site Web <https://parlonstransport.ca/parlons-en-RAC>.

### ADS-B

Beaucoup de choses ont été écrites et dites sur l'ADS-B, ce qui en confond plusieurs et cela se comprend. Pour le monde de l'AG, il existe différents systèmes: un avec des antennes aéroportées (sur votre avion) dirigées vers le sol, un vers le ciel, un vers les deux. Pour le moment, les pays mettant en œuvre l'ADS-B utilisent des stations au sol pour recevoir et retransmettre des informations et les antennes aéroportées pointent vers le sol. D'autres pays qui n'ont pas encore réglementé l'ADS-B (incluant le Canada) utiliseront probablement un mélange de systèmes au sol et de satellites ou exclusivement de satellites. C'est uniquement aux États-Unis que deux fréquences (978 MHz sous FL180 ou 1090 MHz partout) peuvent être utilisées, le reste du monde n'en utilise qu'une (1090 MHz). Nav Canada, qui étudie l'utilisation potentielle de l'ADS-B au Canada, utilise le modèle à 1090 MHz qui pointe vers des satellites. Gardant à l'esprit cette brève introduction, je vous invite à lire la position de la COPA sur le mandat proposé de l'ADS-B au Canada, dont une version abrégée apparaîtra plus loin dans ce numéro. Elle a été publiée le 6 mars dernier, mais je croyais nécessaire de la partager une fois de plus pour que tout le monde puisse la lire. N'hésitez pas à nous contacter pour discuter et partager vos opinions: [bgervais@copanational.org](mailto:bgervais@copanational.org).



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✉ **RE: EYE IN THE SKY —  
SPACE-BASED ADS-B ELTS**  
(COPA FLIGHT, OCTOBER 2018)

The article describes how Aireon can augment installed ELTs to reduce the false alarm rate and to possibly find those ELTs that don't perform at a real crash site. It is commendable that COPA may have come to the realization that Aireon won't do everything, and that ELTs should not be thrown away. Maybe there is hope in moving on to a philosophy that will include ELTs and a coherent ADS-B system. Aireon is great for airliners, and for ANS providers to bill them, but it doesn't do much for GA safety. It receives ADS-B position reports, but only if you have a top-mounted ADS-B transmitting antenna.

However, the current standard for the FAA 2020 mandate that a lot of people have put bags of money on the line, conventionally uses a bottom-mount antenna to work with the current SSRs and FAA ADS-B ground stations. So, you could have paid \$60K to update your aircraft for the FAA 2020 solution but it probably will not work with Aireon. At least the FAA configuration provides in-flight weather and NOTAMs (only in the USA), but the biggest benefit is realized with a coherent ADS-B In and Out capability. The resultant inflight collision alerting is amazingly effective for a relatively low cost. We at the RAA have been experimenting with UAT & 1090ES for almost a year now and have come to some conclusions about its potential for GA. The current Nav Canada solution provides no benefits for the enormous cost of a compliant 1090 diversity (dual antenna) ADS-B Out system for Aireon alone. If you had any doubts about Aireon's ALERT intention, their website makes it clear that:

"The service is not designed for private pilots and the General Aviation (GA) community, who are reminded that they should escalate all requests for uncertainty, alert or distress ac-

tions with the appropriate ANSP and mandatory State authority in accordance with current procedures."

Aireon is a distraction from the real flight safety issues. Shouldn't we be concentrating on technologies that add to flight safety? Ever had a near-miss? After having been there and talked to others who almost didn't make it through, it is amazing how much we are willing to pay for traffic alerting. What about that midair report at St. Hubert? The TSB has sent another shot across the bow to us about the inadequacy of 'see and be seen'.

"As established by the TSB in previous reports, a number of viable and economical on-board alerting systems exist or are under development. These technologies offer the potential to significantly reduce the risk of mid-air collisions."

Have you been wondering about the safety of weather while flying? Subscription-free in-flight weather clearly adds to weather awareness and can reduce NOTAM-busting (Borden airshow for example, where numerous incursions occurred). Our target cost could be under \$2500 if we implement mature ADS-B UAT solutions, but regulatory changes are needed. Acceptance of UAT in Canada, and the ability to use non-certified safety equipment, are currently major hurdles in achieving this goal. On the operational side, waivers for pitot static transponder testing would go a long way toward reducing the ongoing cost of maintaining ADS-B and transponder systems in light aircraft.

COPA and the RAA need to work with TCCA to insist upon a policy to improve flight safety at a reasonable cost. This is not a Nav Canada responsibility, and TCCA needs to set the environment for the safety improvement. The U.K. CAA has proved that this can be done, and the FAA has some great solutions. The dialogue should continue.

**STEP 1:** Sort out ELT issues. Find out why ELT units are surviving

crashes but aren't transmitting. TCCA needs to seriously look at a number of TSB reports and find out what they missed beyond hook and loop fasteners. Why do 406 ELT replacement batteries cost so much? Why do we need a yearly re-certification for new 406 ELTs? Get the cost down and improve the performance.

**STEP 2:** Work with TCCA to create an infrastructure for low-cost electronic conspicuity that provides real value to us. We have visual conspicuity with strobes and nav-lights on our airplanes, so why not something better? Consider what is happening in the U.K. and the U.S. to create an infrastructure for ADS-B. What about all of those FSS and ATC Nav Canada VHF radio communication sites across Canada? There are almost 300 of these across Canada with excellent ground-to-air capability and support infrastructure, ripe for ADS-B traffic and weather. Barring that possibility, local airports that have already embraced ADS-B in technology and linked the information to the internet through FlightAware will have to expand local solutions by installing small ground-based UAT beacons.

This could provide some of the FIS-B and TIS-B solutions we need to achieve the additional safety features available through ADS-B in the U.S.

Our testing indicates that there is hope for Aireon-compatible ADS-B installations on a large number of aircraft, simply by repositioning the transponder antenna to on top or on the wingtip. This has the potential of providing excellent aircraft-to-aircraft conspicuity, while also delivering the one-way Aireon uplink data to ATC. The bottom-mount antenna location is greatly overrated versus a clear line-of-sight location.

Ultimately, the option of installing an ADS-B system in smaller aircraft should be at the discretion of the pilot/owner. Many of our COPA, RAA and UPAC members and friends do

not have the possibility to install equipment in their aircraft due to technical restrictions, costs or other issues. However, in the interest of improved safety, we should be working towards an ADS-B infrastructure that supports its adoption and uses its full potential in higher traffic areas around urban centres and busier aerodromes throughout Canada. As more pilot/owners begin to use ADS-B and recognize its benefits, flying can only get safer.

On behalf of the RAA Technical Advisory Committee,

*Lee Coulman and Dan Oldridge*

**THANK YOU, COPA**

I'd like to thank the COPA Flight Safety Foundation for the very amazing opportunities that it grants our nation's youth by funding and governing the Neil Armstrong Scholarship. I am extremely grateful to have been selected as the second place winner of the 2018 Neil Armstrong Scholarship and I want to convey my utmost gratitude.

This scholarship will enable me to immediately work on my night rating and begin working on my multi-IFR rating. I attend university and work part time, so this scholarship will hugely assist me financially as I move on in my life. I have plans to finish my float endorsement in the future, as well as earn my taildragger and one day have a plane of my own.

Thanks to COPA, I now have a head start towards reaching those goals and fulfilling my love for flying. I apologize that I could not be present at the COPA Convention in Saint John was unable to meet the Armstrong family representatives. I will honour this award and use it to the best of my abilities.

I also want to express my gratitude to the COPA for Kids program and all that it has done in introducing Canada's youth to the wonders of



flying; without it I would not be as passionate about aviation as I am today.

Thank you once again. I cannot adequately describe the happiness and honor I feel having been given this award.

*Cody J. Lincoln*

*Ed. note: In Steve Pajot's history of the CF-104 (Oct, 2018), an editing error led to the statement that all Starfighters were declared surplus in 1971. In fact, only 44 were.*

**SEND US YOUR STORIES, LETTERS AND PHOTOS**

COPA Flight is the outlet for COPA members to let others know what they're doing to advance, promote and preserve the Canadian freedom to fly and we're here to share your stories.

News stories should be 500-1,000 words and make sure facts are checked and the statements made in the article are factual.

Letters should be no more than 500 words and be civil and respectful.

Photos must be sent in high resolution. A good rule of thumb is that if the image is 1Mb or larger it's good to go.

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# TAILWINDS BAR & GRILL: 2018 MEMBERS' CHOICE AWARD-WINNER

BY LAUREN NAGEL

The bustling scene at Orillia Rama Regional airport (NJ4) is virtually unprecedented for an airport of its size in rural Ontario. The freshly renovated airport, described as a “one-stop shop aviation mecca” by Lake Country Airways pilot Jamie Mortley, is giving pilots a reason to fly in. The centre of attention of the operation is the newly built Tailwinds Bar & Grill, which opened just this summer and has been drawing crowds every day of the week.

Clayton Smith, a bush pilot and Commercial Realty Group principal, bought the airport in 2016 and has been upgrading it ever since. Changes include extending the runway and apron, adding more docks for seaplanes, paving a new road and parking lot and building 30 new private T-hangars. These updates have certainly given the airport a facelift, but employees and customers agree that it is the new restaurant that has drawn the most visitors.

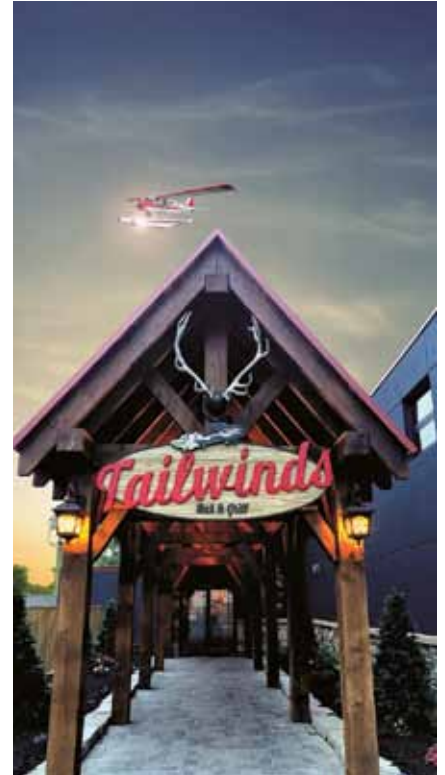
Many in the flying community will have already seen pictures of the beautiful venue — two life-sized aircraft hanging from the ceiling, a giant patio, TVs, a pool table as well as comfortable booths and couches. The restaurant was designed so that guests will be able to get comfortable and stay awhile while taking in the views of the arriving seaplanes over food and drinks.

The head chef, Stephen Jackson, has over 30 years of experience in the industry and has catered the menu to fit customers' desires as well as adding some of his own favourites. According to Jackson, their busy period is, “All day long, everyday”, with guests flying



in throughout the morning and afternoon to try the locally famous dishes. Their most popular menu items include the buffalo chicken wrap and carrot cake.

Going forward, the restaurant has big plans for the winter and upcoming season. Fly-in visitors will be happy to know that the runway is maintained all winter and the restaurant will remain open all year long. Additionally, they are working to bring a snowmobile trail right up to the property so that those preferring that mode of winter transport can visit. The kitchen will also be updating their menu to offer more seasonal meals to keep guests warm inside after their journey.



Airport receptionist and administrator Kenzie Brailey says that her favourite part of working at the airport is seeing all the fun things going on, from birthday parties to marriage proposals. Captain Brendan Shengrow of Lake Country Airways attests that flying over their lake country is fantastic and worth the trip for both the scenery and the atmosphere.

Tailwinds wishes to thank all of their new and returning customers who support them. Thanks to their fans, Tailwinds won COPA's 2018 Members' Choice Airport Restaurant Award with nearly 1000 votes. If you haven't flown in recently, put Orillia Rama Regional on your list. 🍷



# COPA'S PERSPECTIVE ON ADS-B

## DEFENDING CANADA'S GA COMMUNITY IN OTTAWA

**ADS-B Out is a satellite-based surveillance technology that will contribute to increased air traffic efficiency and has the potential to enhance aviation safety in Canada and around the world. The proposed Transport Canada mandate is for a one-way data link from aircraft to satellite. The ADS-B 1090ES technology in Canada (which uses 1090 MHz, the current transponder frequency) is designed to improve the efficiency of the air transportation system for high-altitude, high-speed and long-range air traffic, particularly heavy aircraft operators and major carriers. Some of the goals are to provide improved spacing and shorter routes, bringing about reduced operating costs. This is quite different from low altitude short-range operations characteristic of GA.**

COPA's concern centres on the cost-benefit ratio for the GA community.

Knowing that the vast majority of the GA fleet is not looking for the same ANS efficiencies and performance improvements as the CAR705 and other operations of similar nature, the only potential benefit to GA for now is air traffic awareness resulting from using ADS-B In when an aircraft is equipped accordingly.

With the growth of the ADS-B technology around the world but particularly because of the mandate in the U.S., the cost of the equipment is gradually becoming less expensive. ADS-B In is much cheaper than Out and can be portable, but ADS-B In is only good if others have ADS-B Out. In other words, the situational awareness is increased by receiving the outbound signal of others in their proximity, but only from those that have the outbound equipage.

In COPA's view, Nav Canada should equip the whole GA fleet with ADS-B Out equipment (at their expense).

ADS-B Out serves primarily Nav Canada's goal to eventually reduce separation, establish routes that are more efficient and in the end save the bigger operators time, fuel and therefore money which will offset their ADS-B investment. These are not the reasons or the motivations for GA traffic and operators as mentioned above. If the mandate is looking to equip GA with ADS-B for safety reasons, everyone needs to have ADS-B out, not just a few. A substantial portion of the costs would be covered by the savings from removing radar installations and modernizing nav aids.

ADS-B 1090ES does not contribute significantly to enhancing safety in GA due to its significant lack of relevant features. COPA recognizes that some GA operators, at their own cost, have already equipped their aircraft with ADS-B 1090ES, both Out and In, primarily because they travel to the U.S. sufficiently often to justify the investment. These same operators have also readily identified the shortcomings of ADS-B 1090ES from a GA perspective and have also equipped with 978UAT (the U.S.—only ground-based 978 MHz system) because of the close proximity to the U.S. border. The ADS-B Out mandate should allow for the GA community to benefit from improved Search and Rescue protocol. The ELT as we know it represented the best technology available at the time the ELT mandate came into effect. This technology did provide some improvement in Search and Rescue operations for many years. Technology has now evolved tremendously to the point where we notice the shortfalls of ELT, providing dubious value in facilitating the location of missing aircraft. Due to its twice-a-second update rate via satellite data-link, ADS-B would undoubtedly provide pinpoint

accuracy of an accident site without depending on the currently available and failure-prone ELTs mounted inside aircraft. It would also eliminate the need for time consuming and very expensive airborne searches based on inaccurate DF homing techniques, when the ELT does function properly. Aircraft without an installed electrical system (i.e. no transponder) should continue to have a process to operate in Canadian airspace. It is essential these aircraft be permitted to continue operating without the burden of an ADS-B Out mandate. This also addresses the many types of American aircraft that fly across the border into Canada, including those with no transponder.

COPA does not support the proposed ADS-B Out 1090ES mandate below FL180 due to the disproportionate ratio of cost to benefits for GA at the present time. We do not see any use or need for ADS-B for the GA community in the near to medium term due to high costs burdening the aircraft owner and the lack of features and/or benefits enhancing the overall GA experience, efficiency and safety unless everyone in the country is ADS-B Out equipped. We encourage Nav Canada to develop strategies that would address the issues COPA has raised, and present a workable ADS-B solution for GA below FL180 in the long term that mitigates the burden of acquisition and installation as well as provides technological breakthroughs such as being able to replace antiquated ELTs. These would address the GA requirements and allow prospective adoption by this sector as technology progresses and costs go down.

This is a summary of the full document available in the Advocacy section of [www.copanational.org](http://www.copanational.org).

## POINT DE VUE DE COPA SUR L'ADS-B

À LA DÉFENSE DE LA COMMUNAUTÉ DE L'AVIATION GÉNÉRALE À OTTAWA

L'ADS-B Out est une technologie de surveillance aérienne opérant à partir de satellites. Elle contribuera à accroître l'efficacité du trafic aérien tout en améliorant possible-ment la sécurité aérienne à travers le monde. Le mandat proposé vise l'établissement d'un lien de données numériques unidirectionnel entre les aéronefs et les satellites. Le recours à la technologie ADS-B 1090ES au Canada (sur la même fréquence que les transpondeurs) vise l'amélioration de l'efficacité du système de transport aérien en haute altitude, à haute vitesse et sur de longues distances, tel que pratiqué par les exploitants d'aéronefs lourds et les lignes aériennes majeures. Certains des objectifs recherchés visent à améliorer la séparation du trafic et à raccourcir les routes, de façon à en réduire les coûts d'opération. Mais tout ceci est bien différents des conditions d'opération de l'aviation générale, à ses altitudes plus modestes et sur des distances réduites. En fait, la principale préoccupation de COPA vise le rapport coûts-bénéfices en ce qui concerne la mise en œuvre des dispositions au sein de l'aviation générale.

Sachant que la vaste majorité des aéronefs de l'aviation générale ne sont pas forcément en quête d'améliorations de leur efficacité ou de leurs performances SNA dans l'esprit du RAC 705 ou d'autres démarches de même nature, le seul avantage concret que l'aviation générale pourrait espérer retirer de l'adoption de cette technologie est l'amélioration de la perception du trafic aérien environnant pour l'équipage de conduite de tout appareil ainsi équipé.

En raison de la prolifération de la technologie ADS-B à travers le monde, mais d'abord et avant tout à cause de

la promulgation du mandat américain, l'équipement devient graduellement moins coûteux.

L'ADS-B In est beaucoup moins onéreux que le système Out et peut même être portable, mais l'ADS-B In n'est vraiment utile que si les autres utilisent l'ADS-B Out. Autrement dit, la perception du trafic ambiant est améliorée par la réception de signaux retransmis par d'autres aéronefs dans la région immédiate, mais cette visibilité accrue ne s'applique qu'aux appareils munis de l'ADS-Out.

Ceux qui profiteront le plus de cette conscience situationnelle accrue seront parmi les premiers qui auront adopté le système, —s'ils ne l'utilisaient pas déjà dans leurs déplacements sur les routes aériennes internationales—, et on le retrouvera essentiellement parmi les opérateurs désireux de profiter des avantages économiques ainsi assurés. Ce qui n'est évidemment pas le cas pour l'aviation générale, pour l'instant du moins, tant et aussi longtemps qu'il restera des stations de radar au sol et des transpondeurs dans les cockpits.

Du point de vue de COPA, Nav Canada devrait équiper (à ses propres frais) la totalité du parc de l'aviation générale du matériel ADS-B Out nécessaire. D'ailleurs, cette technologie vise essentiellement à rencontrer l'objectif de Nav Canada de réduire l'espacement du trafic pour ainsi accroître l'efficacité des routes



aériennes. L'implantation du nouveau système aurait pour conséquence principale de permettre aux gros transporteurs de réaliser des économies substantielles de temps, de carburant et donc d'argent, ce qui leur permettrait d'amortir leur mise de fond. Les considérations qui précèdent ne s'appliquent toutefois pas aux nécessités de l'aviation générale, comme on l'a expliqué plus haut. Si le mandat vise l'équipement de la flotte de l'aviation générale avec l'ADS-B pour des motifs de sécurité, il faudra que tous et chacun utilisent l'ADS-B Out et non seulement quelques aéronefs. Une proportion importante des coûts impartis seraient d'ailleurs comblée par les économies réalisées en démantelant le réseau radar de l'ancienne technologie, et en n'ayant plus à moderniser périodiquement les aides à la navigation.

Le système ADS-B 1090ES ne contribue pas de façon vraiment palpable à l'amélioration des conditions de sécurité, pour ce qui est de l'aviation générale, puisque les fonctionnalités

nécessaires en sont absentes. COPA a été à même de constater cette carence puisque certains pilotes ou propriétaires d'aéronefs de l'aviation générale ont déjà pris l'initiative de munir leurs appareils de l'ADS-B 1090ES, dans les versions Out et In, au gré de leurs propres moyens, et ce, parce qu'ils se rendent aux États-Unis à bord de leur aéronef suffisamment souvent pour justifier cet investissement. Ils ont ainsi pu rapidement identifier les lacunes flagrantes de l'ADS-B 1090 dans le contexte des besoins de l'aviation générale. Ces opérateurs se sont aussi munis du 978UAT (le système à 978 MHz basé au sol uniquement aux États-Unis) en raison de leur proximité avec la frontière américaine.

La mise en œuvre du mandat ADS-B Out devrait également permettre à la communauté de l'aviation générale de profiter de l'amélioration du protocole de recherches et sauvetage. Les ELT, tels que nous les connaissons, consistaient la meilleure technologie disponible au moment de son adoption. De fait, cette technologie a amélioré l'efficacité des opérations de recherches et sauvetage pendant plusieurs années. Toutefois, la technologie a évolué au point où nous avons pu constater les nombreuses faiblesses de l'ELT, ce qui a soulevé des doutes sur son utilité réelle dans la localisation des appareils portés manquants. À cause de la mise à jour à toutes les deux secondes des informations positionnelles obtenues par satellite, l'ADS-B assurerait sans aucun doute une précision extrême dans la localisation des lieux d'un accident, sans dépendre des signaux souvent douteux des balises de localisation ELT installées sur les appareils. Le nouveau procédé éliminerait la nécessité de monter des opérations des recherches aériennes coûteuses et fastidieuses à partir de données radiométriques de précision douteuse et ce, même si la balise ELT a bien fonctionné.

Les aéronefs ne possédant aucun système électrique installé (v.g. sans transpondeur) devraient pouvoir continuer à évoluer dans l'espace aérien canadien, suivant un processus établi à cette fin. Il est essentiel que ces appareils puissent continuer à voler sans avoir à supporter la contrainte d'un mandat ADS-B Out. Ceci touche également plusieurs types d'aéronefs américains qui franchissent la frontière pour se rendre au Canada, y compris les aéronefs non munis de transpondeurs.

COPA ne peut souscrire, non plus, à l'application d'un mandat ADS-B Out 1090ES à des altitudes inférieures à 18 000 pieds (FL180) à cause du rapport coûts/bénéfices extrêmement défavorable de sa mise en œuvre pour l'aviation générale, à l'heure actuelle. Nous ne voyons ni nécessité ni besoin d'utiliser l'ADS-B dans l'aviation générale à moyen et à court terme, à cause des coûts élevés, du manque de fonctionnalités, d'avantages et/ou d'un accroissement de la sécurité dont profiterait l'aviation, à moins que la totalité des appareils du parc de l'aviation générale ne soit munis de l'ADS-B Out.

Nous invitons Nav Canada à élaborer des stratégies qui apporteraient des réponses aux questions soulevées par COPA et constitueraient une façon acceptable à long terme d'implanter l'ADS-B dans l'aviation générale, sous la barre de FL180, en allégeant le fardeau de l'acquisition et de l'installation, tout en assurant l'accès aux progrès technologiques, comme au remplacement des anciens ELT. Ces stratégies permettraient de rencontrer les besoins de l'aviation générale tout en assurant l'adoption prospective des nouvelles technologies par ce secteur, au gré des découvertes et de la diminution des coûts.

Ceci est un résumé du document complet disponible dans la section « Représentation » de notre site [www.copanational.org](http://www.copanational.org).



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# WEBSTER TROPHY WINNERS ANNOUNCED

## GENDER BALANCE AMONG FINALISTS ALMOST ACHIEVED

BY LAUREN NAGEL



Since 1932, one competition has brought together some of the best and brightest in the world of Canadian aviation. The Webster Memorial Trophy, founded by the late Dr. John C. Webster, crowns Canada's Best Amateur Pilot out of dozens of applicants each year, bringing excitement and prestige to the sport. Nine finalists from nine regions of the country were brought together from August 20 to 25 in order to complete four remaining tasks in addition to those in the application stage. The person from each region with the highest combined scores on the Transport Canada flight test and written exam goes on to the national finals, which take place in a different region each year. This year's Webster competition was hosted by Seneca College in Peterborough, Ontario.

The four evaluations the participants must undergo address a number of skills required to be a successful pilot. The first task is a flight test based on minimal briefing, evaluating the pilot's ability to follow aircraft procedures and react to emergency situations. The next task is a written exam addressing many of the same topics as the traditional



Transport Canada PPAER exam. Next, finalists conduct a pre-programmed flight in a simulator donated by Red Bird Simulations to test their performance in situations it would otherwise be impossible or dangerous to simulate in the air. Finally, each participant must complete an interview with questions relevant to safety and the current aviation climate. The scores from all four of these evaluations are totalled and used to crown a winner.

This year's batch of finalists was the first of its kind, comprising four women and five men from a variety of backgrounds. At the time of the competition, two participants had their PPL, seven their CPL, three had a multi-engine rating, one a float rating and one an instructor rating. Some got started in the world of aviation very early, such as Joo Sung (Daniel) Shim who started visiting airports for fun when he was just a child. Another participant, Sara Voth, who put her flight training on hold to raise her two young kids, got started later but is newly pursuing her goal to become an airline pilot. The participants also vary in terms of their goals in the

▲ Webster Trophy finalists gather for a group photo in Peterborough, Ont.

field of aviation. Natalie Smith, who at 20 years of age already has her CPL, multi-engine and float ratings, says that she is open to a variety of careers in aviation, but that commercial and corporate piloting are at the top of her list. Mihar Raouf is also still considering which branch to pursue after completing her B.Sc in aviation science and biochemistry. Raouf acknowledges that aviation is not just about pilots, "We need all the dispatchers, organizers, mechanics, etc. to function."

Uniting these contestants is a love and passion for aviation. Many of the activities the participants take part in during their free time included a tour of Flying Colours Corp and the chance to check out King Air and CRJ simulators. These activities were organized with the help of Seneca College aviation representative and Director of Business Lynne McMullen. She worked alongside national administrator Brenda Reid, who works tirelessly to make Webster week possible. The victor of this year's competition was

22-year-old Carter Simpson, who received his CPL from Seneca Flight College. Growing up, Carter lived on a farm with an interest in anything with a motor, saying that he got into aviation because it was "...the only thing cooler than driving a tractor." Among his prizes for winning the competition is a training session with the Canadian Snowbirds and guaranteed interviews with EVAS Air, First Air and Air Canada. The runner-up of the competition, Jonathan Littler of Brampton, plans to use his guaranteed prize interviews to get into the commercial airline world.

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**WINNER CARTER SIMPSON SAYS HE GOT INTO AVIATION BECAUSE IT WAS "...THE ONLY THING COOLER THAN DRIVING A TRACTOR"**

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While neither of the major winners were female, the nearly 50-50 split of the finalists was a historical accomplishment for the Webster Memorial Trophy Competition in terms of gender balance. Participant Carolyn Spence's advice to future female pilots is to "Apply, even if it seems intimidating," having overcome obstacles of her own to get her private pilot's licence. Before finishing her PPL this year, she was a dispatcher in Fort McMurray where she helped coordinate relief during the fires of 2016, reaffirming her aspiration to become a pilot. Winner Carter Simpson goes on to say that he hopes to see 50 percent of the pilot population being female in years to come.

Competitions such as the Webster Memorial Trophy help to promote the field of aviation by getting youth excited and involved. Exuding excitement and wisdom, if these young people are any indication of the future of aviation, then the future is in good hands. 🇨🇦

## INCIDENTS + ACCIDENTS



### PRAIRIE AND NORTHERN REGION

**Winnipeg area control centre (ACC)** received a relayed message from an overflight that an American privately registered Van's RV 8A from Bonnyville, AB (CYBF) to Regina Int'l, SK (CYQR) had declared an emergency (MAYDAY) and was going to crash. Subsequently, and through various sources, it was determined that the aircraft had experienced a very hard landing and sustained damage to the aircraft. No injuries or fatalities. 1 soul on board (SOB). No impact to operations.

**Beginning at 1700Z multiple aircraft** advised and reported hearing an emergency locator transmitter (ELT) signal in the vicinity of Regina. Subsequently at 2312Z Joint Rescue Coordination Centre (JRCC) Trenton reported the source of the ELT to be a crashed spray plane. Pilot contacted JRCC Trenton, Transportation Safety Board (TSB) and the Royal Canadian Mounted Police (RCMP). No impact to operations.

### ONTARIO REGION

**An American corporately registered** Mooney M20J (N56100) from Des Moines Int'l, IA (KDSM) to Kenora, ON (CYQK) experienced a propeller strike during landing on Runway 26.

### PACIFIC REGION

**A Cessna A185F from Williams Lake,** BC (CYWL) to Williams Lake, BC (CYWL) reported gear collapse and landed on floats. The aircraft was disabled and the runway was closed.

### RÉGION DES PRARIES ET DU NORD

**À partir de 1700Z, plusieurs aéronefs** ont capté un signal de radiobalise de repérage d'urgence (ELT) dans les environs de Regina. Par la suite, à 2312Z, le centre conjoint de coordination de sauvetage (JRCC) de Trenton a précisé que le signal provenait d'un aéronef d'épandage accidenté. Le pilote a communiqué avec le JRCC de Trenton, le Bureau de la sécurité des transports (BST) et la Gendarmerie royale du Canada (GRC). Aucun impact sur l'exploitation.

**Le centre de contrôle régional** (ACC) de Winnipeg a reçu un message relayé par un survol indiquant qu'un Van's RV 8A américain privé reliant Bonnyville (CYBF), AB, à Regina Int'l (CYQR), SK, avait déclaré une urgence (MAYDAY) avant de s'écraser. Par la suite, la consultation de différentes sources a permis de déterminer que l'aéronef avait effectué un atterrissage brutal et était endommagé. Le seul occupant n'a pas été blessé. Aucun impact sur l'exploitation.

### RÉGION DE L'ONTARIO

**Un Mooney M20J, d'entreprise et de** propriété américaine (N56100), de Des Moines (KDSM), IA, à Kenora (CYQK), ON, a heurté son hélice en atterrissant piste 26.

### RÉGION DU PACIFIQUE

**Un Cessna A185F de Williams Lake** (CYWL), BC, à Williams Lake (CYWL), BC, a indiqué que son train s'était affaissé et il a atterri sur ses flotteurs. L'aéronef s'est immobilisé sur la piste qu'il a fallu fermer. 🇨🇦

# ENHANCED REALISM IN FLIGHT SIMS

NEW MARKET ENTRANTS TAKE SIMULATORS TO A HIGHER LEVEL



◀ There are now 11 Alsim simulators in Canada, and 320 installed worldwide.

tive, including if the flight time is loggable, as well as instruments and avionics. Transport Canada licensing requirements for initial pilot training (PPL) allow for a maximum of five hours of the minimum 45 hours to be conducted in a certified FTD or SIM. For CPL students, a maximum of 10 hours of the mandatory 20 hours of instrument dual instruction may be conducted in a simulator. For IFR students, a maximum of 20 of the mandatory 40 hours may be conducted in a simulator.

There are many benefits from training in a simulator. From the flight school's perspective: reduced operating costs, increased utilization, less impact from snags, improved professionalism and flight training not limited by the actual weather. From the pilot's perspective: lower hourly costs, consistent instruments and avionics, greater availability and less time required to complete the training syllabus. Simulators allow pilots to gain experience through flying into unfamiliar airports utilizing specific IFR procedures before attempting the flight in the real world. With the instructor shortage, student pilots are able to more efficiently use their instructor's time and not be limited by aircraft availability and the weather.

Alsim, whose head office is located in France, expanded into the North American marketplace on 2017 with an office in Austin, Texas. With more than 320 simulators installed worldwide over the past 24 years (including 11 in Canada), Alsim brings a mature technology that focuses on the pilot experience. Scott Firsing of Alsim reports, "Alsim focuses on the visual elements of a flight, with 83 percent of a pilot's physiological interaction being eyesight. With five different models

Canadian flight simulators harken back to the days of the Link Trainer, produced between the early 1930s and 1950s by Link Aviation Devices based on technology pioneered in 1929. During the Second World War, they were used as key pilot training aids in Canada.

Transport Canada divides simulators into two categories: Flight Training Devices (FTD) and Flight Training Simulators (SIM). An FTD is a replica of an aircraft's instruments, equipment, panels and controls in an open or an enclosed aircraft cockpit, including equipment and programs required to

represent the aircraft in ground and flight conditions. An FTD does not require motion cueing and may be used for many different flight training and checking events. A SIM varies from an FTD in that it is a full-size replica of a specific aircraft type cockpit, has a visual system providing an out-of-the-cockpit view and a force cueing system. The more sophisticated the simulator, the more training and checking may be approved for it.


There are a variety of FTDs operating at Canadian flight schools. These include Redbird, Alsim and Fresca models. There are many differentiators from a general aviation (GA) perspec-

ranging in price from \$200,000 to \$700,000 USD, a typical flight school sees breakeven in two years. I have roughly three hours in the Alsim simulator flying a Piper PA-28. Although not a full motion simulator, the level of realism is very close to the actual aircraft.”

The level of accurate airport detail, terrain and airspace are incredibly true-to-life with the net effect being that the students see virtually the same visual presentation in the FTD that they see in the aircraft. With real Garmin glass and avionics, the look and feel of the cockpit is actual, not simulated. Waterloo Wellington Flight Centre, located at Waterloo airport (YKF) in Ontario, charges an hourly rate for their Alsim ALX of \$125 (plus the instructor’s rate of \$75 per hour). Conversely, their actual Cessna 172 is billed at \$162 and their Piper Seminole at \$294 per

hour (plus the instructor’s hourly rate). Check out a video of the Alsim FTD at: [youtube.com/watch?time\\_continue=849&v=DCFtoEOfAjY](https://www.youtube.com/watch?time_continue=849&v=DCFtoEOfAjY).

Redbird simulators are three-axis motion simulators with surround video displays. The Redbird FTD supports a variety of aircraft. The Redbird simulator operated by Canadian Flyers at Buttonville, Ont. (YKZ) simulates a Piper Seminole (PA-44), Cirrus SR22 and Cessna 172. Canadian Flyers has ‘flown’ the Redbird since 2013. From an owner-operator perspective, the Redbird is more like a computer and less like an aircraft. The Redbird does not require oil changes, is able to fly into low IFR conditions and is not prone to snags. With a service contract, Redbird is able to download patches and fixes directly to the FTD via the Internet. Conversion between aircraft types takes approximately 10 minutes, involv-

ing swapping out an acrylic display screen and the engine control quadrant. It is an exceptionally cost-effective training tool. The actual Seminole’s hourly rate is \$325, plus \$80 for the instructor. The Redbird is \$160 per hour with instructor and \$90 when flown solo. CFI Dario Matrondola reports that, “FTDs enhance the professionalism of a flight school and is an expected flight training tool.” Having personally flown many different simulators, the experience is exceptionally close to real world conditions without compromising pilot and instructor safety. The utilization of simulators offers flight schools improved profitability while delivering a professional training experience. With the current pilot and instructor shortage and higher pilot wages on the horizon, the need for flight training infrastructure will drive the expansion of flight simulators. 

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## AN INTERVIEW WITH AN UNDERWRITER

MAGNES INSURANCE'S BELINDA BRYCE SEEKS UNDERWRITER'S INSIGHT



**O**n the flight home from the COPA Convention and Tradeshow in Saint John, N.B., I had the opportunity to interview Greg Sterling, senior vice-president of AIG, about general aviation in Canada and the COPA Insurance Program.

### **You've been a pilot since 1977, how does this help you as an underwriter?**

Being an effective underwriter requires you to understand the risk you are insuring. Being a pilot allows me to look at risk through the eyes of an aviator. For example, having trained as a pilot and having flown a wide variety of aircraft types in my career, I understand how recurrent training and having high time in a specific aircraft type reduces risk, and how an aircraft's performance and handling characteristics affect risk.

### **What are two or three of your top take-aways from AIG's experience with AOPA that might be valuable for COPA?**

First, I find that pilots who are active in associations tend to also be active in safety initiatives. Second, they tend to be more active pilots, flying more hours per year than non-members. Finally, they are supportive of general aviation as a whole and passionate about protecting their privilege to fly.

### **What do you see as the biggest challenge facing general aviation today and how can the insurance industry help?**

I think the biggest challenge is the falling pilot population, which is driven in part by the rising cost of learning to fly. At AIG we try to find unique ways to give back to the industries which form the foundation of our businesses. That's why we're proud to be the

exclusive sponsor of COPA For Kids. We feel that introducing the next generation to aviation plays an important part in keeping our industry vibrant and healthy. We also try to keep current pilots involved in flying by taking an active role in improving aviation safety and supporting safety activities such as the General Aviation Safety Committee.

### **How do you come up with an insurance premium for an aircraft?**

Contrary to what many may think is 'black magic', the real answer is data. We rely on historical data on pilots, aircraft, accidents and claims. We use this data to place metrics around risk and establish our projected cost of losses. We then incorporate the cost of capital, operational expenses, and try to establish a price that will cover these expenses and create a reasonable return on investment for our shareholders. And we constantly update these metrics as the data changes to ensure that we stay on track with trends in the industry and provide a competitive, value-added product to our insureds.

### **But isn't that what all underwriters do? Why is AIG different?**

Great question Belinda. AIG Aerospace has an advantage over other aviation underwriters because we've been doing it for 70 years, since 1947. This long-standing commitment to general aviation gives us a wealth of data and a better understanding of the market than other companies. In insurance, just as in aviation, experience matters.

### **Why are floatplanes more expensive to insure?**

Again because of what the data tells us. The historical loss performance of float aircraft is such that they require higher premiums vs. land aircraft of similar value and performance.



### Is there anything unique about the COPA program?

Absolutely. COPA members are passionate about protecting and preserving general aviation in Canada and, as a result, are deeply engaged in general aviation. This passion shows through not only in how they fly but in how they purchase aviation products and services like insurance. Their collective buying power establishes the basis for the insurance program and enables them to obtain a great aviation insurance value.

### What are the most surprising claims you've seen in the past five years?

The wreckage of a small aircraft was discovered underneath some power lines near its home airport. The aircraft was destroyed. However, there was no sign of the pilot or any passengers. The owner was located from the registration number. He was alive and well, and very surprised to find out his aircraft was involved in an accident. Inspection of the wreckage revealed probable cause in the form of numerous empty beer cans. Police questioned local residents and identified a local man as a suspect. When they questioned the individual, the non-pilot, who had no formal flight training, quickly admitted to stealing the aircraft and taking it for a joyride, despite being heavily under the influence. He was somehow able to get the aircraft airborne but struck the power lines and miraculously walked away from the accident.

### Do you have any message for COPA members?

Thank you for your commitment to safety and your involvement in general aviation. The VIP Insurance program is intended to protect you and your aircraft, but it's up to you and COPA to protect the freedom to fly in Canada, and from what I could see at the AGM in New Brunswick, COPA is doing a great job. 🍷

## UNE ENTREVUE AVEC UN ASSUREUR

Lors du vol de retour du congrès et foire commerciale de la COPA à Saint John, au Nouveau-Brunswick, j'ai eu l'occasion d'interviewer Greg Sterling, premier vice-président d'AIG, sur l'aviation générale au Canada et le programme d'assurance COPA.

### Vous êtes pilote depuis 1977, en quoi cela vous aide-t-il en tant qu'assureur ?

Pour être un assureur efficace, vous devez comprendre le risque que vous assurez. Être pilote me permet de regarder le risque à travers les yeux d'un aviateur. Par exemple, ayant suivi une formation de pilote et ayant été aux commandes d'une grande variété de types d'aéronefs au cours de ma carrière, je comprends comment une formation récurrente et des heures de vol prolongées sur un type d'aéronef spécifique réduisent les risques, et en quoi les performances et les caractéristiques de conduite d'un aéronef l'affectent.

### Quels sont deux ou trois points importants de l'expérience d'AIG avec AOPA qui pourraient être précieux pour la COPA ?

Premièrement, je constate que les pilotes actifs dans les associations ont tendance à être également actifs dans les initiatives de sécurité. Deuxièmement, ils ont tendance à être des pilotes plus actifs, volant plus d'heures annuellement que les non-membres. Enfin, ils soutiennent l'aviation générale dans son ensemble et sont soucieux de protéger leur privilège de voler.

### Selon vous, quel est le plus grand défi auquel l'aviation générale est confrontée aujourd'hui et comment le secteur des assurances peut-il aider ?

Je pense que le plus grand défi est la diminution de la population de pilotes, qui est en partie motivée par le coût

croissant de la formation au pilotage. Chez AIG, nous essayons de trouver des moyens uniques de redonner aux industries qui constituent la base de nos activités. C'est pourquoi nous sommes fiers d'être le commanditaire exclusif de COPA pour les jeunes (COPA Fro Kids). Nous pensons que l'introduction de la nouvelle génération à l'aviation joue un rôle important dans le maintien de la vitalité et de la santé de notre secteur. Nous essayons également de garder les pilotes actuels impliqués dans les vols en jouant un rôle actif dans l'amélioration de la sécurité de l'aviation et en soutenant des activités de sécurité telles que le Comité de la Campagne de sécurité pour l'aviation générale.

### Comment trouvez-vous une prime d'assurance pour un avion ?

Contrairement à ce que beaucoup pensent, ce n'est pas de la « magie noire », mais de l'information. Nous nous appuyons sur des données historiques sur les pilotes, les aéronefs, les accidents et les sinistres. Nous utilisons ces données pour définir des mesures de risque et établir notre coût prévisionnel des pertes. Nous intégrons ensuite le coût du capital, les dépenses opérationnelles et essayons d'établir un prix qui couvrira ces dépenses et créera un retour sur investissement raisonnable pour nos actionnaires. Et nous mettons constamment à jour ces métriques à mesure que les données changent, afin de rester en phase avec les tendances du secteur et de fournir un produit concurrentiel à valeur ajoutée à nos assurés.

### Mais n'est-ce pas ce que font tous les assureurs ? Pourquoi AIG est-il différent ?

C'est une excellente question, Belinda. AIG Aerospace a un avantage sur les autres assureurs aéronautiques, car nous le faisons depuis 70 ans, depuis 1947.

Cet engagement de longue date envers l'aviation générale nous offre une richesse de données et une meilleure compréhension du marché que d'autres sociétés. En assurance, tout comme dans l'aviation, l'expérience compte.

### Pourquoi les hydravions sont-ils plus chers à assurer ?

Encore une fois à cause de ce que les données nous disent. La perte de per-

formance historique des hydravions est telle qu'ils nécessitent des primes plus élevées que celles des aéronefs terrestres de valeur et de performances similaires.

### Le programme COPA a-t-il quelque chose d'unique ?

Absolument. Les membres de la COPA sont passionnés par la protection et la préservation de l'aviation générale

au Canada et, par conséquent, sont profondément engagés dans l'aviation générale. Cette passion transparaît non seulement dans la manière dont ils volent, mais aussi dans la manière dont ils achètent des produits et des services aéronautiques tels que l'assurance. Leur pouvoir d'achat collectif constitue la base du programme d'assurance et leur permet d'obtenir une grande valeur d'assurance aviation.

### Quelles sont les demandes de règlement les plus surprenantes que vous avez vues au cours des cinq dernières années ?

L'épave d'un petit aéronef a été découverte sous des lignes électriques à proximité de son aéroport d'origine. L'aéronef a été détruit. Cependant, il n'y avait aucune trace du pilote ou des passagers. Le propriétaire a été trouvé à partir de l'immatriculation de l'aéronef. Il était bien vivant et très surpris d'apprendre que son aéronef ait été impliqué dans un accident. L'inspection de l'épave a révélé démontré la cause probable comme étant... de nombreuses canettes de bière vides. La police a interrogé les résidents locaux et identifié un homme du coin comme suspect. Lorsqu'ils ont interrogé l'individu, le non-pilote, qui n'avait aucune formation en vol, a rapidement avoué avoir volé l'aéronef et l'avoir pris pour faire une balade, alors qu'il était fortement intoxiqué. Il a réussi à faire décoller l'aéronef mais a heurté les lignes électriques et s'est miraculeusement extirpé de l'accident sans blessures graves.

### Avez-vous un message pour les membres de la COPA ?

Merci pour votre engagement envers la sécurité et votre implication dans l'aviation générale. Le programme d'assurance VIP vise à vous protéger et à protéger vos aéronefs, mais c'est à vous et à la COPA de protéger la liberté de voler au Canada. De ce que j'ai pu constater lors du congrès et de la foire commerciale du Nouveau-Brunswick, la COPA fait un excellent travail. 🇨🇦

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# NIGHT VFR

## ADD-ON RATING PRESENTS NEW CHALLENGES



Our previous article discussing VFR and Special VFR mentioned Night VFR in passing, and it's a topic worth looking into. We should note that Canada and the U.S. are two of the very few countries allowing Night VFR. We remember that TCCA CAR 602 defines VFR as flying with visual references to the surface, be it ground or water, snow-covered or not. Very basic and very simple, really. That is, until things get complicated. Is it possible for a pilot to operate in perfect Visual Meteorological Conditions (VMC) yet still not have visual reference to the surface? Or is it possible, maybe, to have visual reference to the ground but this visual reference might be misleading? The answer is yes on both counts.

Having visual reference to the surface implies that the general level of lighting in the area is sufficient to allow the pilot to actually see the surface. A clear night with bright moonlight over snow-covered ground can be almost as good as a nice sunny day for VFR. On the other hand, a pitch-black night with no moonlight, or any other source of light, can typically preclude the pilot from seeing the surface. Such circumstances can definitely become akin to Instrument Meteorological Conditions (IMC), which require an Instrument Flight Rules (IFR) rating. Any pilot who has flown in a pitch-black night over the countryside, where one can barely differentiate between the real dark black of the forested surface and the barely lighter dark of the fields, understands the idea. When a power failure wipes out the few spots of light

▲ Night VFR is a rare privilege in the flying world but it comes in handy in northern winters when done with an abundance of caution and preparation.

generated by street lighting or house lights, the few hours of instrument flying we got as part of our Night Rating suddenly take on their real value, their life saving value. Our life suddenly depends on our proficiency at relying on instruments to maintain control of the aircraft, particularly when we don't often fly at night. How about a more realistic scenario: on a typically Canadian dark night with a high cloud cover, still VFR, departing directly over a vast expanse of water? This pilot will rapidly be in a situation of total lack of visual reference to the surface. Survival now depends on a successful transition to basic instrument flying to maintain

control of the aircraft and avoid what really constitutes Controlled-Flight-Into-Terrain (CFIT). CFIT is recognized as one of the major killers in aviation safety and these circumstances have been responsible for numerous aviation fatalities over the years. Even highly experienced pilots became victims of this situation.

Let's consider that our pilot here has enough instrument training to maintain control of the aircraft and executes a shallow turn toward the airport or the city he left behind. Eventually, these city lights will come into view and the pilot will have reacquired visual reference to the surface. All is well, but then again, maybe not. When the city lights come into view, the aircraft is likely still in a shallow turn and the horizon created by these lights might appear tilted to the pilot. This pilot can be lulled into a false

sense of security and correct the attitude of the aircraft to make the horizon look as expected, i.e. horizontal. This kind of false sense can result in the pilot having difficulty maintaining proper control. There is a tendency to execute a series of attitude changes, trying to maintain wings level with that false horizon. This same false horizon can happen when flying at night, where built-up areas are on hills or on the side of hills or mountains: the lit-up area will appear tilted and this can generate a false horizon in the visual perception of the pilot. This may even lead to vertigo. Trusting the artificial horizon or attitude indicator of your aircraft will most definitely help.

Avoiding rising terrain constitutes another significant challenge in a dark night VFR flight. The unforeseen presence of clouds in your path or at your

altitude can suddenly rob the pilot of any visual reference. This can ultimately lead to conducting a VFR flight into IMC. All these scenarios carry with them the real risk of CFIT.

Night VFR flight is not particularly dangerous, but it presents some challenges that every night-rated pilot should acknowledge and prepare for accordingly. It behooves the pilot to properly plan every night flight, regardless of destination or duration, in minute detail. The pilot should consider the weather, the anticipated (or not) presence of clouds and their levels and intensity, the surfaces to be overflown, the terrain shapes and heights, obstacles such as wind turbines and towers, the level of lighting to be expected and the sources of lighting, and ground references for navigation. All of these take a much higher degree of importance at night. 🌙



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# VFR DE NUIT

LA QUALIFICATION DE VOL DE NUIT REPRÉSENTE UN DÉFI

**N**otre récent article discutant VFR et Spécial VFR mentionnait brièvement le VFR de nuit, un sujet méritant une certaine attention.

Notons que le Canada et les États-Unis sont deux des très rares pays à autoriser le VFR de nuit. Nous savons déjà que le RAC 602 définit VFR comme voler avec référence visuelle avec la surface, que celle-ci soit le sol ou un plan d'eau, couvert ou non de neige. Très simple, élémentaire, jusqu'à ce que les choses se gâtent. Est-il possible pour un pilote d'opérer un avion dans des Conditions Météorologiques Visuelles (VMC) mais sans avoir une référence visuelle avec la surface? Est-il possible d'avoir une référence visuelle avec la surface mais que cette référence visuelle soit trompeuse? Dans les deux cas, la réponse est oui.

Maintenir une référence visuelle avec la surface sous-entend que le niveau général d'éclairage de la région est suffisant pour permettre au pilote de voir la surface. Une nuit claire, avec une lune brillante, éclairant un sol couvert de neige, peut être pratiquement aussi bonne qu'une belle journée ensoleillée pour du vol VFR. D'un autre côté, une nuit noire, sans lune ni autre source d'éclairage, peut en réalité empêcher le pilote de voir la surface. De telles circonstances peuvent définitivement être semblables à des Conditions météorologiques aux instruments (IMC) demandant une qualification de vol aux instruments (IFR). Tout pilote ayant volé dans une nuit noire, au-dessus de la campagne, alors qu'il devient très difficile de différencier entre le noir profond d'une forêt et le noir un peu moins profond des champs, visualisera facilement la situation. Ajoutons à ceci une panne d'électricité qui élimine les quelques points de lumière provenant des rares lumières de rue ou des quelques maisons, et nos quelques heures de vol aux instruments incluses dans la qualification au vol de nuit prennent soudainement toute leur valeur, leur valeur nous permettant de survivre à certaines situations. Notre vie dépend soudainement de notre

habileté à utiliser nos instruments et à leur faire confiance pour maintenir le contrôle de notre avion, particulièrement pour quelqu'un qui ne vole que rarement la nuit. Voyons un scénario un peu plus spécifique : lors d'une nuit noire typiquement canadienne, avec un plafond relativement haut, bon VFR, le pilote décolle directement au-dessus d'un vaste plan d'eau. Ce pilote se retrouve rapidement dans un manque total de références visuelles avec la surface. Sa survie dépend maintenant d'une bonne transition au vol aux instruments de base afin de maintenir le contrôle de son avion et éviter ce qui constitue en réalité le vol-contrôlé-dans-le-terrain (Controlled-Flight-Into-Terrain, ou CFIT). Le

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## *LE VOL DE NUIT N'EST PAS PARTICULIÈREMENT DANGEREUX MAIS IL PRÉSENTE QUAND MÊME DES DÉFIS QUE LE PILOTE SE DOIT DE RECONNAÎTRE ET DE SE PRÉPARER EN CON- SÉQUENCE*


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CFIT est reconnu comme étant l'un des grands tueurs dans la sécurité aérienne et ces circonstances ont été la cause de nombreuses fatalités en aviation au cours des années. Même des pilotes très expérimentés y ont succombé.

Voyons le cas d'un pilote qui aurait suffisamment de formation aux instruments pour maintenir le contrôle de son avion et initier un virage léger vers l'aéroport et la ville derrière l'avion. Les lumières de la ville apparaîtront bientôt dans son champ de vision et le pilote a réacquis une référence visuelle avec la surface. Tout va bien donc, mais peut-être pas tout-à-fait. Lorsque ces lumières de la ville apparaissent dans le champ de vision, l'avion est encore dans son virage léger et l'horizon créé

par ces lumières apparaîtra probablement incliné pour le pilote. Le pilote pourra ressentir une fausse impression de sécurité et tentera de corriger l'assiette pour que cet horizon apparaisse normal, ie horizontal. Ce genre de fausse impression peut amener le pilote peu expérimenté, ayant des difficultés à garder un bon contrôle, à se retrouver dans une série de corrections à l'assiette visant à garder les ailes à la fois horizontale et parallèles à cet horizon trompeur. Ce même horizon trompeur peut se présenter en survolant une région habitée lorsque les constructions sont sur une colline ou à flanc de montagne : les parties éclairées apparaîtront inclinées, ce qui peut facilement créer un faux horizon dans le champ de vision du pilote. Ceci peut entraîner le vertigo. Le moment est définitivement propice de faire confiance à l'horizon artificiel.

Éviter le terrain ascendant constitue définitivement un autre défi majeur lors du vol de nuit par profonde nuit noire. La présence surprise de nuages sur notre trajet ou à notre altitude peuvent soudainement éliminer toute référence visuelle au pilote, potentiellement entraînant la continuation d'un vol VFR dans des conditions IMC. Ces scénarios amènent tous le risque réel de CFIT.

Le vol de nuit n'est pas particulièrement dangereux mais il présente quand même des défis que le pilote se doit de reconnaître et de se préparer en conséquence. Le pilote a la responsabilité de bien planifier chaque vol de nuit, peu importe la destination et la durée, dans les plus petits détails. Le pilote devrait considérer la météo évidemment, la présence anticipée (ou non) de nuages et leur niveau et intensité, les surfaces à survoler, les caractéristiques et élévations du terrain, les obstacles tels éoliennes et tours de communications, le niveau d'éclairage environnant disponible et les sources de lumière, les références au sol pour la navigation : tous ces éléments deviennent encore plus importants au cours d'un vol de nuit 

# ON THE HORIZON



## REGULARLY HELD EVENTS

**AIRDRIE, AB:** COPA Flight 134 regular monthly meeting. 1st Thursday of the month at 19:30 held at Airdrie Airport (CEF4) - 4.5 kms east on Yankee Valley Blvd off Highway 2. For more information, please see our website [www.airdrieflyingclub.ca](http://www.airdrieflyingclub.ca) or email us via the web contact form.

**ARNPRIOR, ON:** Flight 33, Monthly Meeting on the 2nd Wednesdays of the month at 7pm at the Arnprior Terminal Building.

**BANCROFT, ON:** Last Monday of the month (except July, August and December) at the Bancroft Flying Club, at the terminal building of the Bancroft Community Airport, 19:00 hrs.

**BEAVERLODGE, AB:** Flight 184's monthly meeting is held on the third Tuesday of the month at 1930 hrs in the Board Room on the second floor of the Grande Prairie Airport Terminal Building.

**BONNYVILLE, AB:** Flight 90's monthly meetings held the last Monday of each month at 1900. Held in the terminal building at CYBF.

**BORDEN, ON:** Flight 84's Monthly meetings are held on the third Thursday of the month at Edenvale Aerodrome (CNV8) at 1900hrs. [www.bordenflyingclub.com](http://www.bordenflyingclub.com).

**BOUNDARY BAY, BC:** Flight 5's monthly meetings are held every second Wed of the month, 19:30 at Delta Heritage Air Park (CAK3). No meetings in July and August.

**BRANTFORD, ON:** Flight 148's Monthly meetings are held on the third Wednesday of each month, at 1900 hrs, Brantford Flying Club

**BRAMPTON, ON:** CNC3 18:00 Monday Night BBQs begin! Every Monday night from June 11th to Sept. 3rd. Join us for our Legendary Monday Night summer BBQ. Going strong into our 12th season. Burgers, sausage, and all fresh trimmings. Nominal cost. RAA-TR Hangar, north end of Brampton airport. Pres. Pres. Fred Grootarz, 905 212-9333, [fred@acronav.com](mailto:fred@acronav.com) ; V.P. Alain Ouellet, 416-709-2020, [aouellet@icecanada.com](mailto:aouellet@icecanada.com)

**CALGARY AB:** The Aerobatic Club of Alberta would like to invite you to our monthly meeting which occurs at 1930 the second Tuesday of each month. Get together and socialize with others who; have a casual interest or curiosity in aerobatics and aerobatic aircraft, occasionally conduct an aerobatic maneuver or are currently pursuing aerobatic competition. We meet to discuss various

## EVENTS ON THE HORIZON

### NOVEMBER 2018

**NOVEMBER 8, SAINT-HUBERT, QC:** Soirée réseautage de l'AQTA et hommage à la famille fecteau le 8 novembre au complexe Airmedic de Saint-Hubert. Notre invité d'honneur M. Thomas Fecteau pionnier et légende de l'aviation de brousse. Invitation spéciale au tarif membre à tous les adeptes de l'aviation de brousse! Appelez-nous au 418-871-4635 ou visitez le site de l'AQTA à [aqta@acta.ca](mailto:aqta@acta.ca)

### DECEMBER 2018

**DECEMBER 8, BRAMPTON, ON:** CNC3 — Christmas Dinner & Silent Auction, Cocktails @ 6pm, Dinner @ 7pm The Do-Not-Miss event of the year in the Wings Restaurant. Completion, and First Flight awards are presented, among other recognition awards, followed by a key-note speaker. Donations to the Silent Auction gratefully received. All proceeds to RAA-TR. Pres. Pres. Fred Grootarz, 905 212-9333, [fred@acronav.com](mailto:fred@acronav.com) ; V.P. Alain Ouellet, 416-709-2020, [aouellet@icecanada.com](mailto:aouellet@icecanada.com)

### DECEMBER 8, LINDSAY, ON:

CNF4 — Christmas Dinner and Dance at the Lindsay Golf and Country Club. Doors open at 6pm, dinner at 7, dance at 8. Music provided by the Harry Peterson Band. 50/50 Draw; proceeds to benefit our COPA For Kids event. Contact President Bob Burns — 705-324-8027 — [bobklfc@gmail.com](mailto:bobklfc@gmail.com)

### MAY 2019

#### MAY 26, BC COAST, BC:

The 99s will be hosting a Poker run on Sunday May 26, 2019 (rain date of Sunday June 2, 2019). More details to come in the spring.

### JULY 2019

#### QUALICUM BEACH AIRPORT AIRSHOW

Saturday, July 13, 2019. There will be static aircraft on display, food trucks, flybys, flight simulators, Aviation booths, etc., and other aviation related events taking place at the show. Contacts: Paul Connor, Airshow Chair, 250-954-7777, email: [evcon1259@gmail.com](mailto:evcon1259@gmail.com) Geoff Graham, Air Boss, 250-2228-2955, email: [kiraco47@shaw.ca](mailto:kiraco47@shaw.ca) Fred Evoy, COPA Flight #76, 250-248-7680, email: [gwfevoy@shaw.ca](mailto:gwfevoy@shaw.ca)

### SEPTEMBER 2019

#### SEPTEMBER 20, 21 & 22, SAINT-BERNARD DE LACOLLE, QC:

Rendez-vous aérien/Fly-In, Lieu/Location, AÉRODROME SAINT-BERNARD DE LACOLLE 45°01' 49,8 " N 73°25' 09,4 " 45.030506, -73.419268 1800 ' piste / runway. Fréquence 123,2 MHZ, rappelez-vous 8 m.n avant l'arrivée 123,2 MHZ, report 8 n.m. before arrival confirmation de présence / please confirm your presence 514-512-8787 texte ou voix/text or voice. Café et Gouté/Coffee and Light Snack. Contribution volontaire /Donation appreciated.

# ON THE HORIZON

club events, aerobatic training, aircraft's and participate in various social activities. Location of the monthly meeting does change so please visit our web site [www.aerobaticscanada.org](http://www.aerobaticscanada.org) for details and more information about the club, events, contest results/photos and contact information.

**CALGARY AB:** Flight 114. Meetings are held on the second Wednesday of the month starting at 1900 to 2100. Location is the Hangar Flight Museum (formerly the Aerospace Museum of Calgary) - 4629 McCall Way NE, Calgary, AB T2E 8A5

**CARLETON PLACE, ON:** Flight 121's Monthly meetings are held on the last Saturday of every month at 1000h at the Carleton Place Airport.

**CHARLOTTETOWN, PEI (CYYG):** COPA Flight 57/PEI Flying Assoc. Every Saturday at 0800 hrs join our members for breakfast at Razy's Roadhouse, 161 St. Peters Rd., Charlottetown. Also on the first Saturday of the summer months we have our Saturday Fly-in & Burgers from 1200 until 1400 hrs. No Ramp or landing Fees. For more information or to arrange a ride from Apron 2, please contact Brian at 902-626-6963 or Barry 902-626-5882, [pound@pei.sympatico.ca](mailto:pound@pei.sympatico.ca).

**CHATHAM-KENT, ON:** COPA YCK will host their monthly meetings every Second Monday of each month at 1900h. Hosting Summer BBQs on Monday nights beginning June 11th at 5:30pm. Holidays will be cancelled.

**CLARENCE-ROCKLAND, ON:** Flight 132, Embrun. Meetings every first Thursday of each month at 20:00 at 3984 Indian Creek Road, city of Clarence-Rockland.

**COLD LAKE, AB:** COPA Flight 205 holds their bi-weekly meeting Thursday at 4:30, at Cold Lake Regional Airport Terminal Building.

**CORNWALL, ON:** Flight 59's Meetings are the 2nd Saturday of each month at 9 am at Cornwall Regional Airport (CYCC).

**DAWSON CREEK, BC:** Flight 183, Mile Zero Dawson Creek holds their monthly meetings every last Thursday of the month. 250-782-6876.

**EDENVALE, ON (CNV8):** Every Thursday from January 5-December 15, the Edenvale Classic Aircraft Foundation restoration shop is open and we invite everyone to fly over, or drive by and pay a visit. Membership flights are available in all our tail-dragger aircraft, including the Tiger Moth and Fairchild Cornell. For more information, contact Bryan Quickmire at 705-818-2223 or [info@classicaircraft.ca](mailto:info@classicaircraft.ca). Visit our website at [www.classicaircraft.ca](http://www.classicaircraft.ca).

**EDMONTON, AB:** COPA Flight 176 regular monthly meeting. 1st Thursday of the month at 1930 held at the Alberta Aviation Museum - 11410 Kingsway Avenue NW in the lecture area. For more information, please see our website or contact Janis at [treasurer@copaedmonton.ca](mailto:treasurer@copaedmonton.ca).

**ESTEVAN, SK (CYEN):** Regular COPA Flight 3/ Flying Club Meeting, held 2nd Tuesday of even numbered months, February, April, June, etc. at 1930 in main terminal building. For more information, please contact Neal Linthicum at 306-421-7629 or [nealandnadine@hotmail.com](mailto:nealandnadine@hotmail.com).

**FREDERICTON, NB:** Flight 2. Meeting times are 2nd Tuesday of each month at the Bloor Street Church in Fredericton at 7 pm.

**GRAND FALLS-WINDSOR, NL:** COPA Flight 195 Regular monthly meeting (excluding June, July and August) held 3rd. Tuesday at 1900 in the community room of IBEX Fuels, 46 Hardy Ave. All welcome whether you are a seasoned pilot, or just getting interested in aviation come on out.

**GUELPH, ON:** COPA Flight 1's meetings will be held the first Tuesday of the month, 1930hrs at the Guelph Airport Café.

**HANOVER, ON:** Flight 54 Monthly meetings on every 2nd Saturday of the month at the CYHS SMA Boardroom from 0930 to 1030. Everyone welcome!

**HAVELOCK, NB:** COPA 27-The Havelock Flying Club invites you to fly-in or drive-in for breakfast any Sunday of the year. Our weekly Breakfasts are served between 0800 and 1000. For more information check out our website at [www.havelockflyingclub.ca](http://www.havelockflyingclub.ca)

**HAWKESBURY EAST, ON (CPG5):** COPA Flight 131 monthly breakfast meeting on the 1st Saturday of the month from 0830 to 1100 hrs. Come and talk about aviation with passionate flyers, make new friends and enjoy the friendly, homey atmosphere. For more information, please call Michel at 819-923-6767 or [HawkesburyFlyingClub@gmail.com](mailto:HawkesburyFlyingClub@gmail.com). The airport web site is <http://www.easthawkesburyairport.com>

**HAWKESBURY EST, ON (CPG5):** Escadrille 131 déjeuner mensuel les 1er samedis du mois de 8h30 à 11h. Venez parler aviation et faire de nouveaux amis dans une



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# ON THE HORIZON

ambiance amicale. Pour plus d'information, contactez Michel 819-923-6767 ou [HawkesburyFlyingClub@gmail.com](mailto:HawkesburyFlyingClub@gmail.com).

Notre site web pour l'aéroport est <http://www.easthawkesburyairport.ca>

## HIGH RIVER AIRPORT, AB (CEN4):

First Thursday of every month at the 187 Squadron Royal Canadian Air Cadet Hangar the EAA Chapter 1410 has their monthly meeting 1830 - 2100. Whether you have a casual interest in aviation, you are an active pilot, or you are an avid homebuilder of aircraft, we offer the chance to meet others who combine fun with learning. We meet to learn from informative speakers, participate in various social activities, and are active in the flying community. Come by and visit! Please contact Paul evenings at 403-271-5330 or [eaahighriver@shaw.ca](mailto:eaahighriver@shaw.ca). Visit our website at [www.eaahighriver.org](http://www.eaahighriver.org) for more details.

**HINTON, AB:** COPA Flight 126 is also the Hinton Flying Club. Meetings on the second Friday of the month at 2000 hrs at the Hinton/Entrance Airport Clubhouse/Terminal Building.

**INNISFAIL, AB:** Flight 130. Innisfail Flying club members meet every third Thursday for each month. (Except July and August) The meeting is held at the Innisfail Terminal Building at 19:30.

## KAMLOOPS, BC:

COPA FLIGHT 82 CYKA (KAMLOOPS) — Flying Club Monthly Meeting — First MONDAY of every month — 7:00pm Social 7:30pm Meeting. Business, Social & Aviation Topic Presentation (video or guest speaker). Join us to talk flying and support General Aviation in Kamloops!

New members always welcome!

Contact: [kamloopsflyingclub@gmail.com](mailto:kamloopsflyingclub@gmail.com) or [www.kamloopsflyingclub.com](http://www.kamloopsflyingclub.com)

## KELOWNA, BC (CYLW):

COPA Flight 36, Kelowna Flying Club, Apron III Event General Meeting, 1st Tuesday of each month. Pre-meeting BBQ starts at 1800; meeting starts at 1900. Join us for news and updates, guest speakers and fellowship! For more information, please contact Dave McElroy at [Info@kelownaflyingclub.com](mailto:Info@kelownaflyingclub.com) or go to our website at <http://kelownaflyingclub.com>. The Third Sunday of every month until the end of October we are having a Fly-In Drive-In Pancake Breakfast. Join us from 09:00 -12:00 at 6135 Airway Way, Kelowna, BC.

## KINGSTON, ON:

COPA Flight 109. Monthly meetings held at 0930hrs - 1100 at Fred Brown Rd (Camden East Airfield, CCE6) on the 1st Sunday in each month.

## KITCHENER, ON (CYKF):

COPA Flight 26, Breslau Flyers. Monthly meetings are held on the second Tuesday of each month (September-June) at 1900 hrs in an upstairs classroom at the Waterloo Wellington Flight Centre. A variety of speakers present a range of interesting aviation topics. All are welcome. For more information, please contact Flight Captain Gordon Millar at [gordon.millar@rogers.com](mailto:gordon.millar@rogers.com) or visit the website for the Breslau Flyers at <http://www.copaflight26.com%22/>

## LAC LA BICHE, AB:

COPA Flight 165. Monthly meeting held every second Tuesday at CYLB terminal building. AGM on or before October 1 each year. <http://www.laclabicheflyingclub.ca>



## LETHBRIDGE, AB:

COPA Flight 24 (Lethbridge Sport Flyers) would like to invite you to our weekly Saturday breakfast at 0730 local held at Smitty's Pancake House, 2053 Mayor Magrath Dr. S. in Lethbridge, Alberta. You may call ahead for more information, or if you need a ride from the airport or to just make sure that we are there as sometimes during good flying weather we may be gone doing what we all love best: flying. Contacts are Glen Brown, 403-393-9058 or Marty Nordstrom, 403-894-8947. Our email is [lethbridgesportflyers24@gmail.com](mailto:lethbridgesportflyers24@gmail.com) and our website is <http://www.lethbridgesportflyers.com>.

## LINDSAY, ON:

Kawartha Lakes Flying Club COPA Flight 101 has a regular monthly meeting on the 1st Wednesday of each month at 1900 at LCVI High School, 260 Kent Street West, in Lindsay. Enter through the cafeteria's east door. We meet to discuss various club events with a focus on promoting aviation interest within the Kawartha Lakes. No meetings are held in July (BBQ) and December (Christmas Party). The Kawartha Lakes Municipal Airport, Lindsay consistently has the lowest fuel prices and the Airport View Restaurant, a "pilot's restaurant," serves up



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# ON THE HORIZON

what are commonly referred to as, “The World Famous Butter Tarts.” The club supports an active float-based membership. For more information, please contact Bob Burns at [bobklfc@gmail.com](mailto:bobklfc@gmail.com), or visit the Kawartha Lakes Flying Club at [klfc.ca](http://klfc.ca).

## MEDICINE HAT, AB (CYXH):

Flight 171 Medicine Hat (Gas City Aviators) Club meets the last Thursday of the month at the Club Hanger at 1900. Additionally coffee and donuts every Wednesday from 0900 to 1030 at the club hangar.

## MORDEN, MB: CJA3 Friday Fly-day BBQ!

Every Friday evening, 17:30-19:30, from June till the end of August! Come down to Morden, Manitoba for some delicious food including steak, chicken, burgers and hotdogs. This is a great destination to enjoy with your airplane family. We're starting our 18th BBQ season — looking forward to meeting you!

## NANAIMO, BC (CYCD): Welcomes you!

Nanaimo Flying Club holds regular meetings; Third Sunday of every month 0930, followed by guest speakers & lunch. Meet & greet breakfasts or brunches held first Saturday of every month. Keep the dust off your wings;

join our “Truancy Squadron” callout offering weekly impromptu fly-outs. The cost is free — the fun, priceless. Visit for a round of golf next door, or join the BC-Social-Flying group on Yahoo to see what's happening. Special events & theme parties held throughout the year. Social activity suggestions to encourage flying and relations with other clubs always welcome. Co-ordinates are lat 49.1683°, long -124.0357°. For more information, please contact Don at 250-758-3540 or [president@nanaimoflyingclub.org](mailto:president@nanaimoflyingclub.org). Visit our website [www.nanaimoflyingclub.org](http://www.nanaimoflyingclub.org).

**NELSON, BC:** Flight 87 has their monthly meetings every third Wednesday at 6:00 p.m., Nelson Pilots Association Clubhouse, next to the terminal building at CZNL. Dinner usually served (10\$)

**NORTH BAY, ON:** Meetings are held on the 2nd Monday of each month (except during June, July & August) at 19:00. Meeting locations vary, Please call for info: 705-495-1561.

**OKOTOKS, AB (CFX2),** Foothills Flying Club, COPA Flight 81 regular meeting at 1930, last Monday of the month, Okotoks Elks Hall. 58 Elizabeth St. Okotoks AB. For

more information, please contact Robert at [foothillsflyingclub@icloud.com](mailto:foothillsflyingclub@icloud.com) or 587-226-9753, or visit our website at <http://www.foothillsflyingclub.com/>

**OLDS/DIDSBURY, AB (CEA3):** Monthly Meetings held every first Tuesday of the month at Olds-Didsbury Airport at 1930 hrs. COPA Flight 142 fly-in second Saturday of each month 0900 until 1300hrs. Discounted Fuel, coffee and donuts. Everyone welcome to come and meet fellow pilots and take advantage of the discounted fuel. For more information, please contact Ed Shaw at 403-701-1600.

**L'ORIGINAL, ON:** CPG5 East Hawkesbury airport every first Saturday of the month for breakfast from 0830 to 1100.

**OSHAWA, ON:** Flight 70's meetings are held on the first Thursday of Every Month at 7:30 PM at 420 Wing Oshawa

**PONOKA, ON:** COPA Flight 187 monthly meeting is held on the first Monday of every month at 1900, at the airport terminal.

**PENTICTON, BC (CYFF):** Penticton Flying Club / COPA Flight 50 holds its monthly meeting on the second Tuesday of the month at 1900 hrs at the club house on 126 Dakota Way. All pilots and members of the public interested in aviation are welcome. We also meet every Thursday morning at 1000 hrs for an informal coffee chat at the club house. Fly-ins are always welcome! For more information about both events, please contact Ron Johnson, [ronjohnson@telus.net](mailto:ronjohnson@telus.net) 250-493-0441.

**PETERBOROUGH, ON:** Flight 34's meetings are every 2nd Wednesday of the month, 7:00 pm, Peterborough Airport Terminal.

**PICTON, ON (CNT7):** COPA Flight 53, breakfast on the second Sunday of every month starting at 0800 a.m. April-December. Located at the Prince Edward Flying Club, co-ordinates N 43 59 21 W77 08 21. For more information, please call Jeff & Jackie Douglass at 613-471-1868.

**PITT MEADOWS, BC (CYPK):** Aero Club of BC is holding its traditional fly-in and fuel sales. Every 3rd Sunday of the Month 09:00 to 18:00. Free hot dogs and coffee between 1100 and 1500. Regular Meetings are held on every (first) 1 Wednesday of the month starting at 1930 for Aero Club events please connect to our <http://aeroclubofbc.ca/> and join our Facebook Page.

**PLYMPTON-WYOMING, ON:** Sarnia Flight 7 holds their monthly meetings at 1900, every



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# ON THE HORIZON

fourth Monday of the month at the Naval Association located at 403 Wing, 1430 Lougar Avenue, Sarnia.

**POINTE CLAIRE, QC:** Every 3rd Thursday except June, July, August & December, the Montreal Chapter of the Canadian Aviation Historical Society features a guest speaker at their 1100 hrs meeting at the Pointe Claire Legion Hall, 365 St-Louis. Light lunch provided, \$5 voluntary landing fee requested. Anyone interested in the history of civil or military aviation is welcome. For more information, please call Ron at 450-463-1998.

**PONTIAC, QC:** COPA Flight 169 Pontiac Monthly breakfast meeting on the 1st Saturday of the month. Come and talk about aviation with passionate flyers! Spouses and children are welcome. For more information, please contact Maurice at 819-360-0706 or Andre at 819-329-2830.

**PONTIAC, QC:**

Escadrille 169 Pontiac: Déjeuner mensuel les 1er samedi du mois au restaurant Aylmer BBQ situé au 134, rue Principale (Aylmer), Gatineau, 819-684-4372. Venez parler aviation avec des pilotes passionnés! Les conjointes/conjoints et les enfants sont bienvenus. Pour plus d'information contactez Maurice 819-360-0706 ou Andre 819-329-2830.

**PRINCE GEORGE, BC:** Flight 79. Monthly meeting held every 2nd Wednesday of month at 1930 at Clubhouse in the south end of apron at CYXS.

**QUALICUM BEACH, BC:** Flight 76, Meetings held at 7p.m., on the first Tuesday of odd-numbered months, QBFC clubhouse. Executive meetings: 6:30 p.m., 3rd Thursday of the month, QBFC Clubhouse.

**QUEBEC, QC :** Escadrille 168, 3e Lundi de chaque mois 19:30 hr. À divers endroits chez divers membres. Flight 168, 3rd Monday of every month, 1930 / Call for information / Téléphoner pour information (418) 889-9023

**RED DEER, AB:** Red Deer Flying Club / COPA Flight 92 meet on the 3rd Monday evening of each month (except July & August) at the Flying Club building directly north of the Red Deer Airport Terminal Building. Meetings start at 1930. Always an interesting program or speaker. For additional information call Bert at 403-350-5511 or visit [reddeerflyingclub.org](http://reddeerflyingclub.org).

**RUSSELL, MB:** Monthly meeting for Flight 138 is every first Wednesday of the month at 8:00 pm at the Russell Flying Club clubhouse.

**SASKATOON, SK:** Flight 10 meets every second Tuesday of the month at 1900 at SK Aviation Museum classroom.

**SARNIA, ON:** Flight 7 Monthly meetings at 1900, every fourth Monday of the month at the Naval Association located at 403 Wing, 1430 Lougar Avenue, Sarnia.

**SEDGEWICK, AB (CEK6):** Iron Creek Flying Club, COPA Flight 157 regular monthly meeting, second Thursday of each month at 1930 at the Flagstaff Regional Airport terminal building. Drive or fly in. Cardlock fuel available 24 hours and courtesy vehicle. Everyone welcome. For more information, please contact Shelley at [shelley@ccewireless.ca](mailto:shelley@ccewireless.ca). Monthly Fly-In every third Saturday, 157. Fly-in for coffee, goodies and visiting 1000 - 1300.

**SHOAL LAKE, MB (CKL5):** Shoal Lake Flying Club/COPA Flight 162 holds general meetings on the second Tuesday of every second month (Feb, April, ...) at 1930 at the Airport Terminal Building, visitors welcome. The December meeting is a potluck supper followed by a short Annual Meeting and a social event. Check the meeting schedule by clicking on the News and Events tab at [www.slflyingclub.com](http://www.slflyingclub.com). Email [slflyingclub@gmail.com](mailto:slflyingclub@gmail.com) for more information.

**SMITH FALLS, ON:**

Monthly Fly-In Breakfasts brought to you by 33 Full Stop Breakfast Bar. Served from 7:30am to 11:30am. Dates: April 29, May 27, June 17, July 29, August 26, September 30 and October 28. Location: Smiths Falls Airport (CYSH). 102 Van Exan Drive, Montague, Ont. 11 kms east of the town of Smiths Falls off Roger Stevens Rd <http://www.smithsfallsflyingclub.com> Airport# 613-283-1148

**SUNDRE, AB:** Flight 146 Sundre Flying Club meetings second Thursday of the month at 1930. Hamburgers and hot dogs and snacks anytime at terminal-self serve. For more information, please contact Myron Bignold at 403-638-7370 or [winnmy@telusplanet.net](mailto:winnmy@telusplanet.net).

**ST-THOMAS, ON:** Flight 75. Summer BBQs start on Wednesday June 13 and run weekly until September 5. They start at 5pm and finish up around 7pm. Hamburgers, salad, dessert, and sweet corn in season.

**STAR CITY / TISDALE, SK:** COPA Flight 93. Monthly meetings on the 3rd Monday of the month Sep-Jun at the Tisdale Airport Terminal Building.

**STRATFORD, ON:** Flight 69 meets on the 2nd Tuesday of each month, 7:00 pm, at Stratford Municipal Airport, CYSA, Terminal Building boardroom/classroom.

**VAL D'OR, QC:** COPA Flight 192's monthly meetings are on every 2nd Tuesday of the Month. 1800 at Hangar Q-60, Val-D'Or, QC. Vernon, BC (CYVK): COPA Flight 65 will be hosting a monthly meeting every third Tuesday of the month at 19:00 hrs. VFC Clubhouse, 6210 Tronson Rd, Vernon Regional Airport, BC, most meetings preceded by a Barbecue or Potluck.

**VERMILION, AB:** Flight 204 Meetings every Second Wednesday of the month.

**VICTORIA, BC (CYYJ):** COPA Flight 6 usually meets the first Tuesday of each month from 1900 until 2100. You do not need to be a member of the VFC or of COPA in order to participate. For more information, please contact [copaflight6@gmail.com](mailto:copaflight6@gmail.com).

**WELLAND, ON:** Flight 149. Monthly meeting held every 3rd Tuesday of each month. Niagara Central Airport, Pelham. 7:00 pm

**WESTLOCK, AB (CES4):** Copa Flight 139 (Westlock Flying Club) regularly meets on the third Thursday of every month at 1900, in the terminal building at Westlock Airport. For more information, contact Dan at [dan@syz.com](mailto:dan@syz.com) or 780-961-2213. We look forward to seeing you!

**WESTPORT, ON:** Flight 56/Rideau Lakes Flying Club Social evenings on the 1st and 3rd Wednesday evening during late May thru late September. The club provides the BBQ, you bring whatever you choose for an evening meal.

**WETASKIWIN, AB:** Wetaskiwin flying club (COPA 51) is hosting a coffee/snacks every 4th Saturday of every month at the terminal building from 9 - noon. Flight 51 meets every first Tuesday of the month.

**WIARTON/GEORGIAN BLUFFS, ON:** COPA Flight 68 monthly meeting is held the 2nd Saturday of the month at 0930hrs at the Wiarton/Keppel International Airport CYVV at the airport Terminal Building. For more information, please contact Don Colter at 519-793-3473 or [dshcolter@cabletv.on.ca](mailto:dshcolter@cabletv.on.ca)

**WHITECOURT, AB:** Flight 185 Monthly meeting at 7:00 PM on the 3rd Tuesday of every month Please contact Curtis at 780-778-0854 for place of meetings.

**WOODSTOCK, NB:** Woodstock Flying Association Monthly fly-in / Drive-in breakfast at the CCD3 Club House monthly on the first Saturday from 08:00 to 11:00 Atlantic, followed by monthly meeting. Everyone is welcome to attend. Please call 506.356.5025 for more information.

# REGIONS ONTARIO

## NORTHERN LIGHTS GALA

ELSIE MACGILL AWARDS PRESENTED

PHOTOS BY GUSTAVO CORUJO

MacGill awards recognizes up to eight women for their contribution to various aviation and aerospace disciplines.

This year's gala, its tenth, was held in Toronto on September 29.

COPA was there, sponsoring a table for Algonquin College aviation program students.



# BUTTONVILLE AIRPORT

COPA FLIGHT 44 HOLDS COPA FOR KIDS EVENT

PHOTOS BY GUSTAVO CORUJO



Eight planes, eight pilots, over a dozen more volunteers and over 100 kids made for a memorable C4K event at Toronto's Buttonville airport (YKZ) on September 29.

Buttonville Flying Club comes through again as they enrich the lives of youngsters, hoping to inspire in them a love of aviation.



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# OSHAWA AIRPORT

## WINNING COMMUNITY SUPPORT

To best understand where the Oshawa airport (YOO) is going, it is important to know how it has evolved.

Prior to 1997 the airport was owned by Transport Canada. In 1997, under the Jean Chretien government, many federal airports were sold off to the municipalities in which they were located. Such was the case for the Oshawa airport; it was passed on to the city of Oshawa.

In order to guarantee the stability and continued operation of the airport, an agreement was reached between the federal government and the city of Oshawa. The agreement mandated that the city continue to operate the airport until the year 2047, and a penalty clause was added to enforce the contract.

If the city disposed of the land and it ceased to operate as an airport, the federal government would get all the revenue realized from the sale.

This brought to the city challenges which it found difficult to cope with. When the federal government owned the airport, the city did not have to deal with noise, pollution or safety complaints. The 'feds' got all the blame and city councillors could side with the residents even though they had no power to change the governing rules. When the city took over ownership, it was the city and the councillors who got the blame, but they still had no authority to change the rules.

To make this situation worse, developers were allowed to build residential housing closer and closer to the airport. People were aging and retiring and spending more time in their houses, especially during the day when the airport was most active. All this led to a need for understanding and co-operation between the residents and the airport operators.

In the case of the Oshawa airport, public relations initiatives became a



growing part of their operations. An Airport Liaison Committee was set up which included residents and users of the airport. Regular town hall meetings were scheduled and at least once a year an open house was held.

This year the Oshawa airport open house was held on Sunday, September 16. The format, worked out by airport manager Steve Wilcox and the Airport Liaison Committee, greatly expanded the event. It was billed as a 'Wheels and Wings' event and took place on the same day that the Battle of Britain Day was celebrated on the south side of the airport.

The main apron was the scene of classic cars and hot rods of every vintage and description. This had a special meaning for Oshawa residents who remembered when General Motors was the biggest company in the area and when Oshawa was known as the city that 'Motovates Canada'.

Residents were able to board buses that travelled airside around the perimeter of the airport, treating those aboard to a run along an active runway, seeing live aircraft up close, visit-

▲ Marching bands, wheels and wings at Oshawa airport's open house.

ing airside businesses that serviced the planes, and the Ontario Regiment RCAC (Tank) Museum. Those wishing to get off the bus at the south end could participate in the Battle of Britain ceremonies.

The two flight schools, Durham Flight Centre and the Canadian Flight Academy offered sightseeing rides at discounted rates (\$20 - \$25 per person); they sold out within two hours.

Candidates for the upcoming municipal election, Dan Carter (Candidate for Mayor of Oshawa) and John Henry (Candidate for Durham Regional Chairman) were on site and freely mingled with residents explaining their platform for the airport.

By the end of the day over 1000 people had attended at least one of the events. And consider this; over 1000 people enjoyed the hospitality of the Oshawa airport and there was only one residential noise complaint. At 1000 to 1, the odds are pretty good that the public relations efforts are starting to work. 🌟

# HAWKES FIELD FLY-IN 2018

AIRFIELD OWNER HANNU HALMINEN WELCOMES ANNUAL EVENT



◀ A pristine 3400-foot grass runway at Hawkes Field welcomes pilots.

turned an overcast, rainy, windy day with a 90-degree crosswind into a successful fly-in.

It is hard to describe the fly-in since every type of airplane is invited. It is not just for homebuilts. As mentioned, strong winds and overcast skies made landings a challenge. But surprisingly the first aircraft to arrive was a Challenger, piloted by owner Steve Dainard. That was a good name for the aircraft because the wind shear and crosswind did make landing a challenge.

Watching Dainard come in gave a whole new meaning to the term 'rock and roll'. With skillful piloting, the aircraft was planted firmly on the ground and took its place in the number one tie-down spot. And if spectators thought that this was feat of skill, they were even more amazed when a Sinus Motor Glider with a 50-foot wingspan also landed safely. 🛩️

Several years after their 20th anniversary, the Oshawa RAA is still sponsoring their annual Hawkes Field Fly-In. This is made possible by the collective support of several individuals and groups.

First on the list is the patron of the fly-in, Hannu Halminen. Halminen owns the Hawkes Field airport (HF4) with its pristine 3400-foot grass runway and spotless hangar. It is located several kilometres east of Oshawa, just outside the Oshawa control zone. Once a year, on the first Sunday after Labour Day, Halminen allows the Oshawa RAA chapter to take over the field and hold a fly-in.

The next group of people who make this event happen are the members of the Oshawa RAA, led by Jim Morrison. They provide the organization and supply the volunteers. They also put up a large portable hangar that serves as their headquarters and the kids' rib-building station.

It should also be mentioned that COPA Flight 70 supplies volunteers, and in fact many RAA members are also Flight 70 members.

This year the pilots and the people who attended showed what kind of stuff they were made of when they

## DONATION

FLIGHT 172 GIVES TO COPA'S FREEDOM TO FLY FUND



**COPA Flight 172-Kincardine held their regular meeting on Sept 18 with COPA Director for Southern Ontario Kevin Elwood as the guest speaker.**

The evening started off with a social gathering to get to know one another, followed by a delicious lasagna dinner before the meeting got underway. Thirty-two guests and members came out to hear what Elwood had to say about the importance of local airports. Being from Collingwood,

◀ COPA Director Kevin Elwood receives cheque from Hugh Girvin.

Ont. himself, the information was relevant and hit home on what has to be done to protect the airport as an economic asset for the community. The timing was great as we have the municipal election coming up and we can get the new council on board to insure its future growth.

After a question and answer period, Elwood was presented with a gift basket from our local Pine River Cheese factory and our Flight Navigator, Hugh Girvin, presented Elwood a \$300 cheque for the Freedom to Fly fund. 🛩️

# REGIONS B.C. + YUKON

## WEST CANADA 99s SCHOLARSHIP WINNERS

FINANCIAL AWARDS GO TO ALBERTA AND B.C. WOMEN

The Ninety-Nines' one-time special financial award in memory of Jean Prior goes to Amelia Fehr of Three Hills, Alberta to pursue her CPL, and the West Canada Section Scholarship goes to Jenna Forseth of Vancouver, to pursue her Multi Engine Rating. Fehr's winnings include a cash award, and Forseth's winning includes a one-year membership to The Ninety-Nines and a cash award.

The West Canada Scholarship is presented annually to a woman pursu-

ing a career in aviation who meets the criteria listed on the application form and who has achieved academic excellence. The award is an initiative offered by The Ninety-Nines West Canada Section and is intended to promote Women in Aviation. For more information about these and other available scholarships, visit the Ninety-Nines' website at [bccoast99s.com/scholarships](http://bccoast99s.com/scholarships), or contact Maryse Rajotte, Scholarship Chair, at [wcdn99scholarship@live.ca](mailto:wcdn99scholarship@live.ca).



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## LEGENDARY BUSH PLANES ON DISPLAY

ALBERTA AVIATION MUSEUM RECREATES TYPICAL ENVIRONMENT

**Snow in Edmonton is not unusual — but it is when it falls in copious amounts in summer. So when visitors to the Alberta Aviation Museum entered the building's interior on September 21, it wasn't much of a transition to one of the prominent aircraft displays.**

Set in a recreated snowy bush setting are a Stinson SR-9 and a Noorduyn Norseman, the latter equipped with skis. The display was designed by museum curator Lech Lebedowski over a two-year period.

"This is a winter scene," says Lebedowski. "We have Norseman on skis and it's also a scene of what the mechanics would be doing in the North working on the aircraft. It was designed specifically with snow in mind."

Assistant curator Ryan Lee was tasked with finding the right artificial snow to use, and it wasn't an easy task. He finally found appropriate products from a film industry contractor in Vancouver. Says Lee, "There's a quilting material on the floor, shredded plastic on top of that which are pretty large

flakes. And then chipped plastic flakes on top of that, which are more shiny and reflective so they give that glistening effect of the snow." The product is used only on non-archival artifacts such as out-buildings, crates and drums as the effect it might have on the well-preserved aircraft is unknown.

The museum is located at Edmonton's famed Blatchford Field, the site of the now-closed Edmonton Municipal Airport (YXD). Much of the previous airport's land has now been developed into multi-family residential units. 🏠

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## AVIATORS FLOCK TO GEORGE WELLER'S FLY-IN

TEXT AND PHOTOS BY JEAN-PIERRE BONIN



It's always a pleasure flying to Stanstead/Weller Airport (TQ2) as the scenery is magnificent. But one has to have keen eyes to find the grass landing strip amongst all the green pastures around. A GPS really comes in handy, but spotting planes on final approach and already on the ground is also helpful. The 01/19 grass strip goes somewhat uphill if landing 01. It took 10 years of work to get it to what it is; the 2600 x 50-foot surface is compact and smooth.

The Weller farm is a vast 370-acre domain that George K. Weller Jr. and

his family progressively developed after moving from Ohio in the U.S. to East Stanstead in 1970. Growing corn, hay, fruits and vegetables, wood and even trout in their ponds, they are known in the aviation world for their great beefalo burgers at fly-ins. There is not enough space here to describe it all, but I do highly recommend you read more on their website, [www.ctq2.org](http://www.ctq2.org).

This year, about 60 aircraft landed at TQ2, making it Weller's biggest fly-in ever. Some even flew from Carp, Ont. for the first time (and I'll bet not

▲ The annual fly-in at the Weller Farm is consistently popular with pilots in southern Quebec.

last time). TQ2 is just a kilometre and a half north of Vermont, and an RV-9A from the U.S. even buzzed over without landing, as Customs refused temporary access to the field for the occasion.

The meal area is nested in a small zone surrounded by trees, making the setting perfect for a friendly talk with hosts and visitors. Keep your agenda open for the 2019 fly-in. 🍴

## LES AVIATEURS SE RUENT SUR LE FLY-IN DE GEORGE WELLER

C'est toujours un plaisir d'atterrir à Stanstead/Weller (TQ2) car le paysage y est magnifique, mais il faut avoir un œil de lynx pour trouver la piste d'atterrissage parmi tous ces verts pâturages. La piste gazonnée est orientée 01/19 et est quelque peu en montée quand on atterrit 01. Il a fallu 10 ans de travail pour arriver à ce qu'elle est maintenant avec une surface compacte et sans bosses et mesurant 2600 x 50 pieds.

La ferme Weller est un vaste domaine de 370 acres que George K. Weller, Jr et sa famille ont progressivement développé après avoir quitté l'Ohio pour se rendre à Stanstead Est en 1970. On y cultive du maïs, du foin, des fruits et légumes, y exploite du bois et on peut même y pêcher des truites. Mais la ferme est surtout connue dans le monde de l'aviation pour ses excellents hamburgers de beefalo (croisement boeuf/bison) servis lors des RVA. Pas assez de place ici pour tout décrire, mais je vous recommande vivement d'aller lire plus en détail sur leur site web [www.ctq2.org](http://www.ctq2.org).

Cette année, ce sont près de 60 avions qui ont atterri à TQ2, ce qui en fait leur plus gros RVA à ce jour. Certains sont même venus de Carp, Ont. pour la première fois (et je parie que ce ne sera pas la dernière fois). TQ2 est à seulement 1,6 km au nord du Vermont, et un RV-9A des États-Unis a même survolé la piste, mais sans atterrissage, la douane ayant refusé un accès temporaire au terrain pour l'occasion.

L'aire de repas est nichée dans une petite zone entourée d'arbres, ce qui en fait un lieu idéal pour une conversation amicale avec les hôtes et les visiteurs. Gardez votre agenda ouvert pour le RVA de 2019 🐾



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# REGIONS ATLANTIC

## NOVA SCOTIA CELEBRATES CADET MOVEMENT ANNUAL DAY OF RECOGNITION HELD ON OCTOBER 6

Unique among Canada's provinces, Nova Scotia holds an annual Cadet Day. The practice was started in 2010 and recognizes all branches of the cadet movement. Across the province city centres and other civic venues were host to parades, some with marching bands, and other celebrations.

There are currently 3500 young people among the 86 cadet units in Nova Scotia. Halifax-area cadets formed up outside Province House where MLA Ben Jessome, speaking on behalf of Premier Stephen McNeil, told those gathered, "The cadet program is

a tremendous way for young people to engage in a variety of fun, challenging and rewarding activities. It teaches invaluable life and work skills and cadets become responsible and active members of their communities."

In Sydney, the mayor and council honoured a number of local cadet units by bestowing upon them 'Freedom of the City', the highest award it can grant. Said Mayor Cecil Clarke, "The Canadian Cadet Organization has a lengthy and rich history of service in our community, providing outstanding opportunities and programs for our youth. [We] are



▲ Air Cadets on parade at CFB Greenwood during summer camp.

proud to be able to acknowledge the hard work and dedication of all those involved in the Cadet Organization through this special ceremony." 🇨🇦

# 2019 MONTEBELLO CHALLENGER GATHERING AND WINTER FLY-IN



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# SENSIBLE ICELAND

FREEDOM TO FLY EVIDENT IN ISLAND NATION

BY JANINE CROSS | PHOTOS COURTESY DAVID BLACK

In 1783, a series of massive volcanic eruptions spewed 120 million tons of sulphur dioxide into the sky, blanketing Europe in a poisonous fog that lasted 8 devastating months. Crops failed across the continent and Egypt suffered a famine that reduced its population by one-sixth. Thousands died from sulphurous acid poisoning. Across the Atlantic, even Benjamin Franklin wrote of the “constant fog over all Europe and a great part of North America.” The source of this catastrophic event? A sea-locked Nordic country 1/9th the size of British Columbia: Iceland.

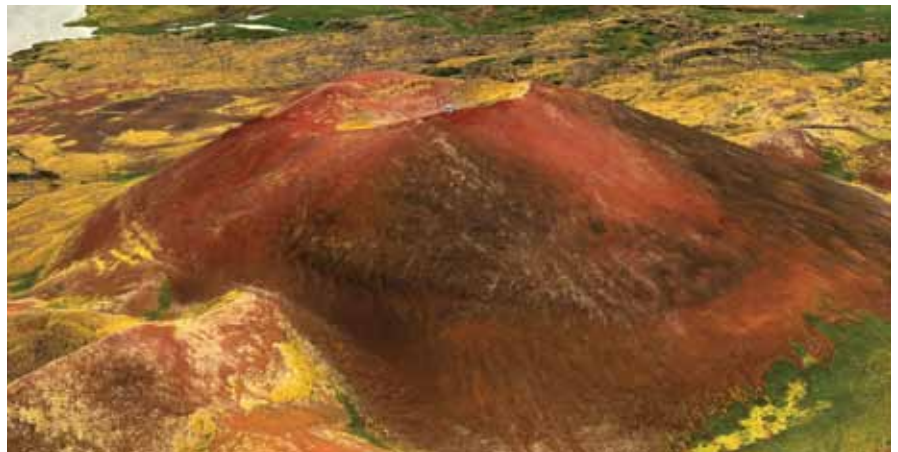
Today, evidence of such violent eruptions exist everywhere in Iceland: moonscapes of mossy lava fields, beaches of volcanic black sand, massive pseudo-craters, strange ochre earth bubbling with heat and escaping sulphuric acids, and basalt columns rising like dwarvish fortresses from tortured ground. Half a year before our visit to this land of fire and ice, we contacted Flugskola Islands at Reykjavik airport. Booking an airplane rental came with the caveat that it could be cancelled at the last minute because training schedules for local students take precedence. Despite a miserably rainy summer,

the god Freyr granted us sunshine and a 6000 foot ceiling the day we were scheduled to fly, and regardless of their caveat, the friendly folks at Flugskola procured an aero club 172 Cessna for us.

They have a wonderfully sensible attitude about flying, Icelanders. There were no “prove-that-you-know-how-to-recover-from-a-stall” check-rides required. We were pilots; therefore, we must know how to fly. An instructor did (thankfully) accompany us on a short flight to familiarize us with the procedures around Reykjavik airport (BIRK), but even then, Arnar shrugged at our incapacity to pronounce the mind-boggling names of the call-up points. “The controller will know you’re foreigners. He’ll work it out with you.”

This pragmatism was evident everywhere. We filed our outgoing and incoming flight plans with ground control in Reykjavik by simply telling the controller where we were going, when we expected to arrive at our destination, and how many passengers accompanied the pilot. Even in commercial aviation, this pragmatism is the norm. Days earlier, for a flight with Air Iceland on a Bombardier Q400, “going through security” simply meant walking into a cafe-serviced waiting area adjacent to the check-in counter. No special doors to go through, no “shoes off, belts off, all-liquids-in-plastic-bags” line-ups, no conveyer-belts of x-ray machines for our hand-luggage, no pat-downs or testing of our hands for explosives residue. We utterly stymied the check-in clerk by asking if we might bring a couple of our own soda bottles “through security”.

The whole country of Iceland is detailed on one aeronautical chart with a standard 1:500000 VNC scale, so it’s impossible to unfold the map to full size in the cockpit. Armed with said map, we started the engine and off we went to the run-up area, where the controller had a long line-up of GA planes waiting while he meticulously handled one transmission at a time, at a pace reminiscent of the sloth in



Disney’s Zootopia movie. Our destination was Stykkisholmur, a picturesque harbour town on the Snaefellsnes peninsula that had been cloaked in drizzle when we’d driven by it four days earlier.

Each airplane in Iceland has its own permanent transponder code (there isn’t enough air traffic to warrant otherwise), and other than while in the airspace of certain airports and a handful of locales, the whole country shares one frequency (118.10). Our route took us northwest across Kallafjordur, Hvalfjordur, and Borgarfjordur, (try to understand those words through your headset), then over the pastoral fields of the Myrar region. We stayed within gliding distance of road 54 while over Eldborgarhraun, the lunar-like lava fields we’d driven through

▲ Spectacular scenery makes Iceland a treat from the air and on the ground.

days before. There’d be no surviving a forced landing on such terrain, save to put down on the road. Off to our left, at the far tip of the Snaefellsnes peninsula, the massive glacier on which Jules Vern based his novel *Journey to the Centre of the Earth* coyly hid under a mantle of cloud, revealing just a glimpse of brilliant white skirt. The colours of moss, lichens, and dramatically red craters passing beneath our plane, combined with stunning gorges and waterfalls, made for a memorable flight. The cost for 2.9 on the Hobbs in Iceland? A cool \$1,060 Canadian! This was the regular aviation price, we learned. How on earth do those Icelandic student pilots afford it? 🇮🇸



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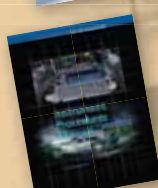
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# FLIGHT SCHOOL MANAGEMENT SYSTEM



**As flight schools get busier and aircraft fleets get stretched a Canadian company has come up with an integrated Web based management system that makes the most of every hour.**

Fleet Captain's Steve Demy says the system combines six basic functions of the flight training environment into a central data base that ensures maximum utilization and the best match of equipment and student.


It also keeps track of regulatory and maintenance milestones and ensures compliance. "Because less time is wasted between bookings and less time is wasted during the bookings, aircraft spend more time in the air, less time on the ground," the company said in a news release. "Better utilization is like having a bigger fleet, without adding more aircraft."

All relevant departments report aircraft, student and instructor sta-

tus into the central database and the availability of staff and equipment is automatically and seamlessly updated. For instance, when an aircraft is returned to service after maintenance, the system is updated and the aircraft is automatically added back to the pool. Any snags are noted and those that restrict certain types of flying automatically prevent the plane from being selected for flights that might include an unauthorized or unsafe use.

The system is especially useful for ensuring the aircraft meets all regs and leaves a clear audit trail for inspectors to follow.

When an aircraft is signed out by a student, instructors and management get a report on the flight and the student gets full information on the status of the aircraft.

Several major flight schools have incorporated the management system. 



# CAREER AND SCHOLARSHIP GUIDE

CONTACT US NOW TO GET INVOLVED

The COPA/Air Canada Pilots Association Career and Scholarship Guide has been a big success with all sectors of the industry facing the challenges of recruitment.

Although it contains valuable information on how those who might already be interested in aviation as a career, it's not as much a "how to" as it is a "why to" guide on what makes those careers so great.

For any number of reasons, aviation has lost some of the appeal that used to keep pilot ranks full to overflowing and job prospects difficult to find for those entering the industry.

In just a few years, the so-called pilot shortage has hit full force and companies at all levels and the military are clamouring for fresh blood.

The guide features articles with people involved in all facets of the industry describing their jobs and the great benefits they enjoy as pilots, in maintenance and operations.

If your company has a great story to tell, we need to hear from you to help spread the word. If the guide can help in your recruitment efforts, email [russ@copaflight.ca](mailto:russ@copaflight.ca) and we can send you some copies.

If your company, educational institution or non-profit groups offers aviation related scholarships not listed in the guide, let us know and we'll make sure they're included.

The next guide will be printed next April but we're starting to assemble it now to ensure it's an even more comprehensive tool for both industry and potential career seekers to get together.

We look forward to hearing from you. 🛩️

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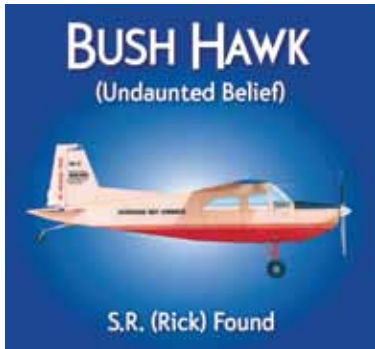
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## BUSH HAWK (UNDAUNTED BELIEF)

An important chapter of Canada's aviation history is told for the first time in a new book by S.R. (Rick) Found titled *Bush Hawk (Undaunted Belief)*. The Found family's name is famous among bush pilots worldwide for having built a tough little freighter aircraft designed for hard service in Canada's wilderness. The author's father Sherman, along with his uncle Nathan (Bud) Found, and with financial backing from department store magnate John David Eaton, took on the herculean task of gaining FAA certification for their dream aircraft. Despite both financial and engineering setbacks, they hung in and produced an airplane that outperformed anything then being imported from the United States. So why, with an industry begging for the plane, were only 27 aircraft produced? Financial consultants and timid bankers did the trick and crashed the Found FBA-2C before it could gain altitude. For 15 years the rights to manufacture lay in Eaton's vault but, (undaunted) Bud Found did the Phoenix-from-the-ashes thing and the Bush Hawk flew once more. Don't wave the maple leaf just yet, as what is known as angel money became the devil's own and the Found family lost their Bush Hawk to investors once more—this time across the seas from where it is about to reappear in international skies.

By S.R. (Rick) Found  
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## BEST SEAT IN THE HOUSE

Jim Griffith and Trans Canada Airlines were both born at about the same time and grew together over the decades, helping knit the expansive country together and becoming consummate professionals. Griffith first joined TCA when North Star piston airliners rattled the windows on long cross-country flights over the Canadian landscape. Griffith experienced the history of Canada's national airline and this book tells the story of both.

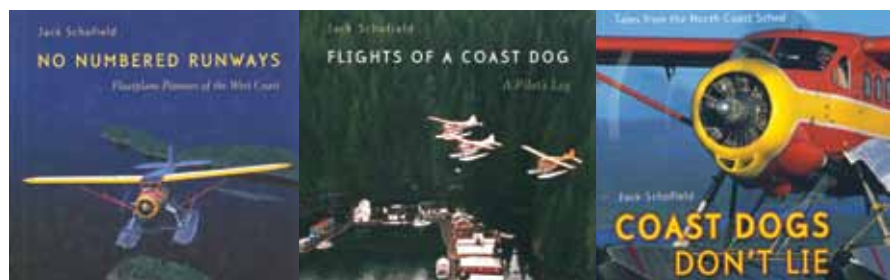
By Jim Griffith  
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## HANGAR FLYING

*Hangar Flying — Tales From the Flight Deck* is now available and is a great 162-page full colour gift for an aviator friend who might just be yourself. Six professionals tell stories from their log books and some outstanding aviation artists illustrate with acrylic paintings and pen and ink sketches and now, for the first time, a twenty-first century painting by a digital Raphael and that's not finger painting. Priced at \$31.00 CAD we can mail it to you for \$7.00 anywhere in Canada. Perfect under the covers reading during winter's blast.

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## THE COAST DOG SERIES

These are Schofield's three books that were destroyed in a warehouse fire and brought back to life by an enthusiastic aviation community who ordered sufficient numbers of sets to finance the reprinting. Wow! That's something of a mind-boggling story. *Flights of a Coast Dog* — a BC book award and west coast bestseller along with its sequel, *Coast Dogs Don't Lie* and some significant BC aviation histories in a revised edition of *No Numbered Runways* makes up the trio of great flying yarns with a BC Coastal flavour.

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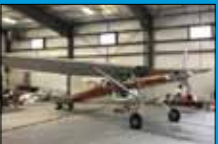
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**1946 CESSNA 140**. TT 2116, 1238 SMOH, all Cyl. 78/80, radio, Xpdr mode C, Cleveland, Alaska B. Tailwheel, brake pedals both sides, always hangared, Paint 8/10, Int. 9/10. \$25,000. 514-694 2129 mjmorea@videotron.ca (3217.17319)



**1946 TAYLORCRAFT BC-12-D A-65** Airframe 3013TT Engine 1942TT New spars, sealed struts, wings and tailplane newly recovered. Radio, Intercom, GPS, ELT Always Hangared \$18,000 Located CSX7 Ontario PH Ron 519-235-2644 or ron.helm@sympatico.ca (3341.17314)



**1970 CESSNA A185E FOR SALE** 5513 A/F hrs, 6 new cylinders, Kehler Skis and Aqua 3300 Floats, Horton STOL, LED Landing/Taxi lights, wing/cowl/windshield covers, JPI EDM 930, Flies great, just not enough time! \$145K Contact: cmcwelsh@telusplanet.net or 780-812-8882 (2572.17323)



**1968 MAULE M-4-210C** Low time Maule M-4-210-C, 2500 Hrs TTAF, 119 Hrs engine, 3.0 hrs Prop. 210 Hp Continental IO-360, McCaulley Constant speed Prop. Fun to fly and very responsive, 1000 lb Usefull load, and 4 seats. \$55K Contact: 250-745-8175 or cottonwoodcreek@shaw.ca (3405.17324)



**ZENITH-CH250TW** Lycoming O320, 160HP, TTAF 870, SMOH 870, Valcom 760, Transponder, Asking \$20,000CDN obo. Wally 705-328-1724 (3404.17322)



**1976 PIPER ARROW II PA28-200R** TT 4085 IO-360 225 smoh prop due 2024, New paint and interior, Horton STOL kit and gap seals, Norco and Bendix nav/com auto pilot, Garmin 496, \$89,000, 780-446-1735 kafer.tony@gmail.com (3374.17321)

FEATURED LISTINGS FOR NOVEMBER, 2018



**1963 CESSNA 150C, ALWAYS HANGARED** FXMN, TTAF 7458.8, TSO 0 ZERO TIME, New prop installed April 21/2016 with 4 hours, Full Logs, Mode C transponder, King Radios, over \$10k on engine rebuild. All cylinders replaced Sept 2018. \$21K. 204-978-0067 or theshalanaya@gmail.com (2589.17291)



**2001 ZENAIR 601 TTSN** 152 on 81 hp Rotax 912, ICOM A200 radio, XPDR, Garmin GPS 196, Many upgrades. Always hangared. \$29,500CDN. Located SW Sask. Jim 306 295 7564 (3395.17303)



**1946 PIPER CUB w/ PA-11 STCs** 5450 TT, 550 SMOH, 0-200 100hp, hydraulic Federal 1500 wheel skis, electric starter, mode C, excellent condition int/ext, April 2018 annual, fun stick & rudder. \$53,000. 647-455-5217 (3108.17069)



**DORNIER DO27-B2 STOL** Special CofA: AB. Like new. Always hangared. 20 year ground-up restoration completed in 2016. Lyc. GO480, 60 TSTOH, propeller 60 TSN. Dynon Skyview D1000. Radios: KMA, dual KX155, KT76A, 406 ELT, I/C. Incl. spare GO235 engine and many Do27 spare parts. \$100,000US. Also available at CYNJ (Langley, BC), one large hangar specially prepared for the Do27, equipped with an Aerolift (2500# capacity) for storing second aircraft on top of Do27 plus a tractor and winch for moving the Do27 in and out of the hangar. \$120,000US. 604-530-8038 or eam.consulting@telus.net (3393.172935)



**1975 BEECH SIERRA B24-R TTAF** 1830. IO- 360 200 hp. New McCauley Black Mac & Slick Mags harness and plugs. New boost pump, vacuum pump & tubes/tires. Extensive \$30k annual. Trades considered including light twins. \$75K Contact: beauchab@msn.com 705-365-7442. (3386.17273)



**1970 CARDINAL 177B** ~3300 TTSN, 1005 SMOH, Recent engine/prop overhaul. Excellent paint, interior shoulder belts. Good avionics incl panel King GPS, 2 radios, wing leveler, hangared at CNF4. Will consider trade for float plane. \$69K. 705-879-0465 or bluzak@xplornet.com (3392.17293)



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**1968 CARDINAL 2170 TTAE**, 340 STOH, KX170B w/GS. KR87 ADF GTX-327 w/TransCal encoder. Apollo SL-15 w/stereo input. Paint and interior 2008. Maple Leaf cowl fairing, Monarch fuel caps, BAS harnesses. \$42,000USD 604-512-3915, jayeandscott@telus.net (2704.17301)



**2000 CHALLENGER II (LONG WINGS)** Rotax 503, 10-gallon tank. 248 hrs (airframe and engine). Accessories: wing strobe lights (not installed), skis, heater, intercom, Turbulence covers, roll of Lexan. East Hawkesbury (CPG5). \$11,000. Contacts: Jacques 613-675-2468, aeroplane@primus.ca or Patrice 613-675-2450. (3403.17320)



**1967 CHEROKEE 140** Aircraft owned and carefully maintained for 21 years by airline AME-E (now retired). 7572 TT, 1608 TSO, 8 Hours since top overhaul. Many avionics upgrades. New interior 2012, paint 2003. Asking \$33,500. Hangared CYXX. (3259.17235)



**1981 BEECHCRAFT BONANZA A36** \*Price Reduced\* C-GPLQ, 5412 TTSN, Engine IO-520BB 285 HP (2142 SMOH), D'Shannon 20 Gallon Tip Tanks, 3-Blade Prop (74 SPOH), TKS (anti-ice system), Garmin 430 Nav/Com/GPS, second coupled GPS Garmin GPSmap 496, autopilot, \$195K E-mail: aerophil@ludostudio.ca (3378.17329)



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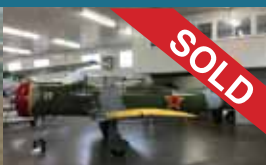
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**BUSHBY MUSTANG II** 215 TT, 215 SMOH, Polstra rebuild, basic panel, Garmin GPS, KY97, transponder with mode C, O320 Lycoming, empty weight 960. Dual Brakes \$45,000 Call: Russ at 905-383-7728 (3368.17277)



**1997 SUPER CUB REPLICA** 514 TT 392 SBOH 5 STOH Lycoming 0-320 150hp, Third seat, Left and right doors, VGS, wheels, tight, Edo 2000 floats, Radio/intercom, Carmin 92 GPS, \$89k OBO, call 519-658-4310 (3253.17284)



**1966 Cessna 150F** 897 SMOH , 9115 SN, \$26,600CDN OBO (250) 753-1874 or email dan1068@live.ca (2732.17262)



**1979 CESSNA TR182** 1400hrs on new 235hp Lycoming engine. Hangared, TT3356, last annual April 2017, special option package. \$110,000. (3340.17237)



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**1974 CESSNA A185F** 4870 TT - IO520D 875 SMOH - 86" 2 blade due 03/20 - Sportsman STOL - VFR mode C - EDO 2960 - on wheels - in annual. \$125,000 250-488-9534 (3251.17263)



**2016 RV7A** 40 hrs TT Garmin G3X touch screen, Auto Pilot, 0-360 New from factory. \$120,000. 587-890-4655 (3325.17269)

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For a list of common abbreviations used in Classified advertising please see page 53

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## 040 – CESSNA

**CESSNA 182 P** Professional paint 2014. 382 Hrs SMOH. New EC cylinders, RG-35 battery & Acorn exhaust 2016/17. Garmin 430 w/ILS head. Narco Mk 12D NAVCOM w/ILS. Fuel Tanks 2009/10. All records. Serious interest only. \$141,000. Ph 613-295-1789 or jrorr@hotmail.com (3379.17264)

**CESSNA 172G** based at Stanhope CND4, for sale or partnership. 66, 3300 TT, 900 SMOH, with several cyl replaced, prop 10SOH, annual May 18. 2VHF, VOR, Xpdr, 4pl inter, new AI, cruise prop (130mph). Either outright sale or partnership. 30,000 OBO. dnorris@rosedaleunited.org (3398.17306)

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## AVIATION ABBREVIATIONS

The following are common abbreviations used in Canadian Plane Trade classified advertising. When counting an ad for insertion charges, each abbreviation is one word. When more than one abbreviation is shown, first given is preferred.

- AC ..... air condition
- A/C ..... aircraft
- AD ..... Airworthiness Directive
- ADF ..... automatic direction finder
- A&E ..... airframe & engine
- alc. .... alcohol (as in alc. prop)
- AP ..... auto(matic) pilot
- ATS ..... automatic throttle system
- ASI ..... airspeed indicator
- 360CH ..... 360 channel radio
- 720CH ..... 720 channel radio
- CG ..... centre of gravity
- CHT ..... cylinder head temperature
- Comm/com ..... communications
- Cont ..... Continental (engine)
- CS ..... constant speed propeller
- DG ..... directional gyro
- DME ..... distance measuring equipment
- EGT ..... exhaust gas temperature
- ELT ..... emergency locator transmitter
- Enc Alt ..... encoding altimeter
- FBO ..... fixed base operation
- FD ..... flight director
- FREMAN,
- FREM ..... factory remanufacture
- GEM ..... graphic engine monitoring
- GPH ..... gallons per hour
- GR ..... glide ratio
- GS ..... Glideslope
- HP ..... horsepower
- HSI ..... horizontal situation indicator
- IFR ..... instrument flight rules
- ILS ..... instrument landing system
- 3LMB/MB ..... 3 light marker beacon
- LOC ..... localizer
- LRF ..... long range fuel (capacity)
- Lyc ..... Lycoming (engine)
- MB ..... See 3LMB
- MK ..... Mark (model of equipment)
- MPH ..... miles per hour
- NAV ..... navigation
- NAV/COM ..... navigation/communications
- NDB ..... non-directional beacon
- NDH ..... no damage history
- OAT ..... outside air temperature
- OBO ..... or best offer
- O/Oxy ..... oxygen
- P&W ..... Pratt & Whitney (engine)
- RMI ..... radio magnetic indicator
- RNAV ..... area navigation
- SCTOH ..... since chrome top overhaul
- SCMOH ..... since chrome major overhaul
- SFREMAN
- SFRM ..... since factory remanufacture
- SMOH ..... since major overhaul
- SPOH ..... since prop overhaul
- STC ..... supplemental type certificate
- STOH ..... since top overhaul
- STOL ..... short take off & landing
- T&B ..... turn & bank
- TBI ..... turn & bank indicator
- TBO ..... time between overhauls
- TT ..... total time
- TTAE or
- TTE ..... total time aircraft engine
- TTAF or
- TTA ..... total time aircraft frame
- TTSN ..... total time since new
- VFR ..... visual flight rules
- VHF ..... very high frequency
- VOR ..... very high frequency  
Omni-Range
- xpdr ..... transponder

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**Group Life Insurance Program** – Get life insurance, designed just for COPA members, at affordable group rates. Most life insurance policies have a general aviation exclusion making it difficult for you to get coverage that covers you while you're travelling as a pilot or a crew member in a private plane. And, if you can find coverage, it's most likely going to be extremely costly. Now, through COPA and Sun Life Assurance Company of Canada, you can help protect your family's lifestyle with life insurance that fits the needs of Canadian pilots.

**Health and Dental Benefits** – COPA, working with Magnes Group, is pleased to introduce Greenshields Health Assist – Health and Dental Benefits for ALL COPA members looking for just Health and Dental coverage (no Life Insurance included in this program).

**VIP Voluntary Accidental Death & Dismemberment Insurance** – Now you can elevate your insurance with one of the broadest Accidental Death & Dismemberment Insurance products in Canada. This coverage protects aircraft owners and pilots 24/7, even when flying.

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**BMO COPA Mastercard** – Every time you use your card to make a purchase, a payment is made to COPA from BMO Bank of Montreal to support your freedom to fly. These funds also help COPA maintain the low annual membership fee.

**VRef Evaluation** – Looking for a value for your plane? Check out VRef Evaluation.

**COSTCO** – Get a \$10 Costco Cash Card when you sign up for a Costco Gold Star or Executive Membership.

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In case of error or omission, *COPA Flight* will be responsible for one insertion only. Ads received after deadline date will appear in the next issue.

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